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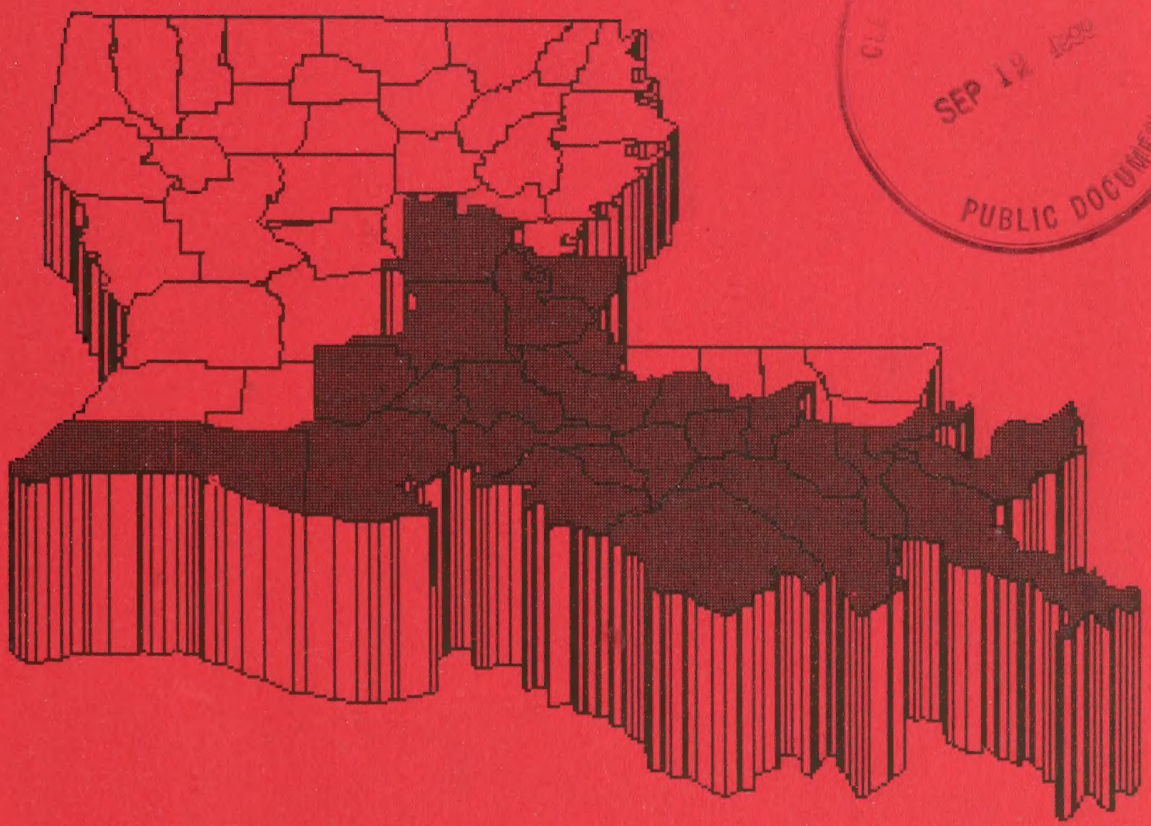
# Forest Statistics for South Delta Louisiana Parishes

James F. Rosson, Jr. and Daniel F. [illegible]telson



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## SUMMARY

The Southern Forest Survey, an activity of the Southern Forest Experiment Station Forest Inventory and Analysis work unit (FIA), covers the states of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, Texas and the island of Puerto Rico.

This survey is part of the nationwide Forest Survey originally authorized by the McSweeney-McNary Act of 1928. More recent legislation pertinent to the survey mission includes the Forest and Rangeland Renewable Resources Planning Act of 1974 and the Forest Rangeland Renewable Resources Research Act of 1978. The survey mission is to develop, analyze, and maintain renewable forest resource information. This information is essential for formulation of forest policies and programs.



## ACKNOWLEDGMENTS

The Southern Station gratefully acknowledges the cooperation and assistance provided by the Louisiana Office of Forestry in collecting field data and in gathering ownership information. Appreciation is also expressed for the cooperation of other public agencies, forest industries, and other private landowners in providing access to the sample locations.

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*Core tables are presented in response to the Southern Industrial Forestry Research Council's recommendations. These tables are identical among Forest Inventory and Analysis units in the eastern United States.

**Figure 1-The Forest Survey regions of Louisiana**

# Forest Statistics for South Delta Louisiana Parishes

James F. Rosson, Jr. and Daniel F. Bertelson

## HIGHLIGHTS

These tables were derived from data obtained during a 1984 inventory of 20 parishes comprising the South Delta Unit of Louisiana (fig. 1). The data on forest acreage and timber volume were secured by a systematic sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurements of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. At each forest location, per-acre estimates were obtained from 5 BA 37.5 point samples.

The sampling methods were developed to provide suitable State estimates. Estimates for smaller areas are presented, but sampling error increases as the area considered decreases. Sampling errors given in table I are based on one standard deviation or a probability of two chances out of three. To estimate the sampling error for a combination of parishes one can use the following:

$$SEG = \frac{SET \sqrt{XT}}{\sqrt{XG}}$$

where:

SE = standard error of estimate (%)

X = variable of interest (area, volume)

G = group of parishes to be combined

T = total for the unit

### Timberland Area

Acreage of timberland decreased from 2,573,100 acres in 1974 to 2,391,300 acres in 1984, a 7-percent decline. Significant loss of timberland has continued in the South Delta unit.

Table I--Sampling errors[1] for timberland, growing stock, and sawtimber, South Delta Louisiana, 1984

| Parish | Timberland | Growing stock | | | Sawtimber volume |
|---|---|---|---|---|---|
| | | Volume | Growth | Removals | |
| | Percent | | | | |
| Acadia[3] | 0.6 | 18.3 | 20.6 | ... | 20.6 |
| Ascension | 4.4 | 21.3 | 26.8 | 48.9 | 25.5 |
| Assumption | 1.5 | 19.2 | (2) | ... | 36.6 |
| Avoyelles | 2.7 | 11.5 | 18.3 | 21.3 | 13.5 |
| Iberia | 2.4 | 14.2 | 30.2 | 5.5 | 20.0 |
| Iberville[4] | 1.7 | 7.8 | 27.4 | (2) | 9.1 |
| Lafourche | 2.5 | 15.9 | 21.1 | 30.4 | 19.6 |
| Pointe Coupee | 2.9 | 12.0 | 12.3 | 22.3 | 12.7 |
| St. Charles | 2.4 | 26.0 | 32.8 | ... | 40.5 |
| St. James | 3.6 | 19.4 | 35.5 | 10.7 | 26.9 |
| St. John Baptist | 1.9 | 37.2 | ... | ... | 37.4 |
| St. Landry | 1.6 | 11.2 | 13.6 | 20.6 | 12.3 |
| St. Martin | 1.8 | 10.0 | 25.6 | 31.8 | 12.1 |
| St. Mary | 2.2 | 16.7 | 36.5 | ... | 17.9 |
| Terrebonne | 2.8 | 21.3 | 33.8 | 39.3 | 27.4 |
| West Feliciana | 2.9 | 32.5 | 27.6 | 18.6 | 46.2 |
| All parishes | 0.6 | 4.5 | 7.1 | 9.4 | 6.5 |

[1] By random-sampling formula.

[2] Sampling error greater than 50.

[3] Lafayette and Vermillion included in Acadia.

[4] West Baton Rouge included in Iberville.

### Ownership

Current forest industry timberland holdings have decreased from 267,500 acres in 1974 to 159,600 acres. Nonindustrial private ownership of timberland fell 6 percent to 2,094,100 acres, mainly because of conversion to agricultural land. For comparison between 1974 and 1984 surveys, nonindustrial private timberland that was leased to forest industry was reported in forest industry timberland acreage.

### Forest Type

No significant changes in forest type occurred except in the elm-ash-cottonwood type. That type fell from 348,700 acres to 243,400 acres, a 30-percent drop. The dominant forest type in the South Delta unit is oak-gum-cypress, occupying 1,989,800 acres, 83 percent of total timberland.

### Stand Size

Acreage of sawtimber stands increased 7 percent (118,800 acres) to 1,806,700 acres, while poletimber and sapling-seedling stands fell 197,800 and 128,700 acres, respectively. Currently, poletimber stands occupy 356,500 acres and sapling-seedling stands occupy 101,400 acres.

### Softwood Volume

Cypress makes up 92 percent of softwood growing-stock volume in the South Delta unit. Total softwood growing-stock volume increased to 1,306 million cubic feet, currently. Softwood sawtimber also increased to 4,800 million board feet in 1984.

### Hardwood Volume

Hardwood growing-stock volume rose to 2,544 million cubic feet. Sawtimber volume also increased to 7,825 million board feet.

### Gross Growth

Gross growth for softwood growing-stock stands averages 10 cubic feet per acre per year. Gross growth for hardwood growing stock averages 37 cubic feet per acre per year.

Softwood sawtimber gross growth averages 60 board feet per acre per year while hardwoods average 150 board feet per acre per year.

### Removals

Annual growing-stock removals on timberland during the 1984 survey period averaged 5 million cubic feet for softwoods and 23 million cubic feet for hardwoods. The growth-to-removals ratios are 4.8-to-1 for softwoods and 2.7-to-1 for hardwoods.

### Number of Trees

The number of live sapling-size softwood trees has declined 7 percent since the 1974 survey. However, the number of live softwood trees larger than 5.0 inches has increased 14 percent. Currently, cypress makes up 73 percent of sapling-size and 90 percent of trees greater than 5.0 inches in the softwood species group.

The number of live sapling-size hardwood trees has decreased 9 percent. There was no change in the number of live hardwood trees greater than 5.0 inches (less than a 1-percent decrease).

### Net Inventory Change

Softwood growing stock increased 18 million cubic feet annually. Softwood sawtimber increased 110 million board feet annually.

Hardwood growing stock increased at an annual rate of 38 million cubic feet while hardwood sawtimber rose 205 million board feet annually.

### Mortality

Annual mortality for softwood growing stock is 2 million cubic feet per year, down from 17 million cubic feet per year reported for the 1974 survey period. Hardwood mortality is currently 28 million cubic feet per year, a decrease from 34 million cubic feet per year reported in 1974.

### Cull Volume

Currently, cull volume for softwoods is 132 million cubic feet, a 22-million cubic foot decline since the 1974 survey period. Hardwood cull volume is 938 million cubic feet, a

large increase since the 1974 survey. A total of 630 million cubic feet of hardwood cull was reported for that period. Softwood cull is 9 percent of total softwood live tree volume. Twenty-seven percent of total live hardwood volume is in hardwood cull trees.

Tables 1-25 were developed to provide compatibility among Forest Inventory and Analysis Projects. Tables 26-36 are supplementary tables and may changes from unit to unit or State to State to address specific resource issues.

## DEFINITION OF TERMS

Average annual mortality.-- Average annual sound-wood volume of live trees, dying from natural causes.

Average annual removals.--Average annual net volume of growing-stock trees removed from the inventory by harvesting, cultural operations such as timber-stand improvement, land-clearing, or changes in land use.

Average net annual growth.--Average annual net volume increase for the inter-survey period.

Forest type.--A classification of forest land based upon the species forming a plurality of live-tree stocking.

Growing-stock trees.--Live trees of commercial species. Rough and rotten trees are excluded.

Growing-stock volume.--Net volume in cubic feet of growing-stock trees at least 5.0 inches in diameter at breast height, from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or to the point where the central stem breaks into limbs.

Noncommercial species.--Tree species of typically small size, poor form, or inferior quality, which normally do not develop into trees suitable for industrial wood products.

Physiographic site.--A classification of forest land according to the availability of moisture for tree growth. Xeric-low or deficient in moisture. Mesic-a moderate amount of moisture. Hydric-an abundance or over abundance of moisture.

Poletimber trees.--Growing-stock trees of commercial species at least 5.0 inches in diameter at breast height, but smaller than sawtimber size.

Rotten trees.--Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of rot.

Rough trees.--Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of roughness or poor form. (Includes all live trees of noncommercial species.)

Sawtimber trees.--Live trees that are of commercial species, contain at least a 12-foot saw log, and meet regional specifications for freedom from defect. Softwoods must be at least 9.0 inches in diameter at breast height and hardwoods at least 11.0 inches.

Sawtimber volume.--Net volume of the saw-log portion of live sawtimber in board feet, International 1/4-inch rule and in cubic feet.

Site class.--A classification of forest land in terms of inherent capacity to grow crops of industrial wood.

Stand-size class.--A classification of forest land based on the size class of growing-stock trees on the area; that is, sawtimber, poletimber, or sapling and seedling.

Timberland.--Forest land that is producing, or is capable of producing, crops of industrial wood and not withdrawn from timber utilization. Timberland is synonymous with "commercial forest land" in prior reports.

# CORE TABLES 1 - 25

Table 1--Area by parish and land class, South Delta Louisiana, 1984

| Parish | All land[1] | Forest land | | | | Nonforest land |
|---|---|---|---|---|---|---|
| | | Total | Timberland[2] | Woodland[3] | Reserved timberland | |
| | Thousand acres | | | | | |
| Acadia[4] | 1433.4 | 97.5 | 97.5 | ... | ... | 1335.9 |
| Ascension | 193.9 | 84.9 | 84.9 | ... | ... | 109.0 |
| Assumption | 234.7 | 144.0 | 144.0 | ... | ... | 90.7 |
| Avoyelles | 553.2 | 166.2 | 166.2 | ... | ... | 387.0 |
| Cameron[5] | 1056.4 | ... | ... | ... | ... | 1056.4 |
| Iberia | 403.1 | 149.1 | 149.1 | ... | ... | 254.0 |
| Iberville[6] | 547.6 | 332.7 | 332.7 | ... | ... | 214.9 |
| Jefferson[5] | 387.4 | ... | ... | ... | ... | 387.4 |
| Lafayette[4] | ... | ... | ... | ... | ... | ... |
| Lafourche | 828.9 | 143.7 | 143.7 | ... | ... | 685.2 |
| Orleans[5] | 223.7 | ... | ... | ... | ... | 223.7 |
| Plaquemines[5] | 901.8 | ... | ... | ... | ... | 901.8 |
| Pointe Coupee | 378.0 | 142.1 | 142.1 | ... | ... | 235.9 |
| St. Bernard[5] | 477.8 | ... | ... | ... | ... | 477.8 |
| St. Charles | 260.8 | 58.8 | 58.8 | ... | ... | 202.0 |
| St. James | 162.5 | 79.3 | 79.3 | ... | ... | 83.1 |
| St. John Baptist | 220.6 | 96.0 | 96.0 | ... | ... | 124.6 |
| St. Landry | 601.0 | 188.8 | 188.8 | ... | ... | 412.2 |
| St. Martin | 523.0 | 305.4 | 305.4 | ... | ... | 217.6 |
| St. Mary | 442.4 | 139.4 | 139.4 | ... | ... | 303.0 |
| Terrebonne | 1034.1 | 104.8 | 104.8 | ... | ... | 929.3 |
| Vermilion[4] | ... | ... | ... | ... | ... | ... |
| West Baton Rouge[6] | ... | ... | ... | ... | ... | ... |
| West Feliciana | 273.1 | 158.6 | 158.6 | ... | ... | 114.5 |
| All parishes | 11137.4 | 2391.3 | 2391.3 | ... | ... | 8746.0 |

[1] From U.S. Bureau of the Census.

[2] Forest land (formerly termed commercial forest land) that is producing or capable of producing at least 20 cubic feet of industrial wood per acre per year. Includes areas which may be inaccessible or inoperable by current standards. Excludes reserved timberlands.

[3] Forest land incapable of producing 20 cubic feet of industrial wood per acre per year under natural conditions because of adverse site condition.

[4] Lafayette and Vermilion included in Acadia.

[5] Negligible forest land, not surveyed.

[6] West Baton Rouge included in Iberville.

Table 2--Area of timberland by parish and ownership class, South Delta Louisiana, 1984

| Parish | All ownerships | National forest | Misc. federal | State | Parish and municipal | Forest industry[1] | Farmer | Corporate[2] | Individual[2] |
|---|---|---|---|---|---|---|---|---|---|
| | Thousand acres | | | | | | | | |
| Acadia[3] | 97.5 | ... | ... | ... | 5.1 | 10.3 | 10.3 | 20.5 | 51.3 |
| Ascension | 84.9 | ... | ... | ... | ... | 6.1 | ... | 24.2 | 54.6 |
| Assumption | 144.0 | ... | ... | ... | ... | 18.8 | 6.3 | 75.1 | 43.8 |
| Avoyelles | 166.2 | ... | ... | 5.4 | 26.8 | 32.2 | 21.4 | 53.6 | 26.8 |
| Iberia | 149.1 | ... | ... | 7.1 | ... | ... | 7.1 | 92.3 | 42.6 |
| Iberville[4] | 332.7 | ... | 5.8 | 23.3 | ... | 17.5 | 5.8 | 227.6 | 52.5 |
| Lafourche | 143.7 | ... | ... | ... | ... | ... | ... | 98.0 | 45.7 |
| Pointe Coupee | 142.1 | ... | ... | ... | ... | ... | 35.5 | 41.5 | 65.1 |
| St. Charles | 58.8 | ... | 3.7 | ... | ... | ... | ... | 29.4 | 25.7 |
| St. James | 79.3 | ... | ... | ... | ... | ... | ... | 52.9 | 26.4 |
| St. John Baptist | 96.0 | ... | ... | ... | ... | ... | 8.0 | 56.0 | 32.0 |
| St. Landry | 188.8 | ... | 5.4 | ... | ... | 37.8 | 37.8 | 32.4 | 75.5 |
| St. Martin | 305.4 | ... | ... | 42.8 | ... | ... | 12.2 | 171.0 | 79.4 |
| St. Mary | 139.4 | ... | ... | 6.1 | ... | ... | 24.2 | 54.5 | 54.5 |
| Terrebonne | 104.8 | ... | ... | ... | ... | 6.5 | 6.5 | 39.3 | 52.4 |
| West Feliciana | 158.6 | ... | ... | 6.1 | ... | 30.5 | 36.6 | 12.2 | 73.2 |
| All parishes | 2391.3 | ... | 14.9 | 90.7 | 31.9 | 159.6 | 211.8 | 1080.6 | 801.7 |

[1] Includes land leased to forest industry.

[2] Indian land will be classed as corporate or individual as defined by the Bureau of Indian Affairs.

[3] Lafayette and Vermillion included in Acadia.

[4] West Baton Rouge included in Iberville.

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Table 3--Area of timberland by parish and forest type group, South Delta Louisiana, 1984

| Parish | Total | Forest type group | | | | | | Nontyped[1] |
|---|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood | |
| | | Planted | Natural | | | | | |
| | Thousand acres | | | | | | | |
| Acadia[2] | 97.5 | ... | 15.4 | ... | 10.3 | 66.7 | 5.1 | ... |
| Ascension | 84.9 | ... | 6.1 | ... | 6.1 | 72.7 | ... | ... |
| Assumption | 144.0 | ... | ... | ... | ... | 137.7 | 6.3 | ... |
| Avoyelles | 166.2 | ... | 10.7 | ... | 5.4 | 150.1 | ... | ... |
| Iberia | 149.1 | ... | ... | ... | ... | 120.7 | 28.4 | ... |
| Iberville[3] | 332.7 | ... | ... | ... | ... | 256.8 | 75.9 | ... |
| Lafourche | 143.7 | ... | ... | ... | ... | 143.7 | ... | ... |
| Pointe Coupee | 142.1 | ... | ... | ... | ... | 136.2 | 5.9 | ... |
| St. Charles | 58.8 | ... | ... | ... | ... | 51.4 | 7.3 | ... |
| St. James | 79.3 | ... | ... | ... | ... | 79.3 | ... | ... |
| St. John Baptist | 96.0 | ... | ... | ... | ... | 88.0 | ... | 8.0 |
| St. Landry | 188.8 | ... | 5.4 | 5.4 | ... | 167.2 | 10.8 | ... |
| St. Martin | 305.4 | ... | ... | ... | 6.1 | 219.9 | 79.4 | ... |
| St. Mary | 139.4 | ... | ... | ... | ... | 121.2 | 18.2 | ... |
| Terrebonne | 104.8 | ... | ... | ... | ... | 104.8 | ... | ... |
| West Feliciana | 158.6 | ... | 18.3 | 6.1 | 54.9 | 73.2 | 6.1 | ... |
| All parishes | 2391.3 | ... | 55.9 | 11.5 | 82.7 | 1989.8 | 243.4 | 8.0 |

[1] Timberland with no current stocking.

[2] Lafayette and Vermillion included in Acadia.

[3] West Baton Rouge included in Iberville.

Table 4--Area of timberland by parish and stand-size class, South Delta Louisiana, 1984

| Parish | All classes | Stand-size class | | | Nonstocked[1] areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | Thousand acres | | | | |
| Acadia[2] | 97.5 | 66.7 | 15.4 | 10.3 | 5.1 |
| Ascension | 84.9 | 66.7 | 12.1 | 6.1 | ... |
| Assumption | 144.0 | 112.7 | 18.8 | 6.3 | 6.3 |
| Avoyelles | 166.2 | 128.7 | 16.1 | 10.7 | 10.7 |
| Iberia | 149.1 | 92.3 | 49.7 | ... | 7.1 |
| Iberville[3] | 332.7 | 268.5 | 40.9 | 11.7 | 11.7 |
| Lafourche | 143.7 | 124.1 | 19.6 | ... | ... |
| Pointe Coupee | 142.1 | 118.4 | 17.8 | 5.9 | ... |
| St. Charles | 58.8 | 36.7 | 11.0 | 7.3 | 3.7 |
| St. James | 79.3 | 72.7 | 6.6 | ... | ... |
| St. John Baptist | 96.0 | 72.0 | ... | 8.0 | 16.0 |
| St. Landry | 188.8 | 134.9 | 37.8 | 10.8 | 5.4 |
| St. Martin | 305.4 | 201.6 | 73.3 | 6.1 | 24.4 |
| St. Mary | 139.4 | 90.9 | 6.1 | 12.1 | 30.3 |
| Terrebonne | 104.8 | 91.7 | 13.1 | ... | ... |
| West Feliciana | 158.6 | 128.1 | 18.3 | 6.1 | 6.1 |
| All parishes | 2391.3 | 1806.7 | 356.5 | 101.4 | 126.8 |

[1] Timberland less than 16.7 percent stocked.

[2] Lafayette and Vermillion included in Acadia.

[3] West Baton Rouge included in Iberville.

Table 5--Area of timberland by parish and site class, South Delta Louisiana, 1984

| Parish | All classes | Site class (cubic feet/acre/year) | | | | |
|---|---|---|---|---|---|---|
| | | > 165 | 120-165 | 85-120 | 50-85 | < 50 |
| | Thousand acres | | | | | |
| Acadia[1] | 97.5 | ... | 5.1 | 51.3 | 41.1 | ... |
| Ascension | 84.9 | 6.1 | ... | 18.2 | 54.6 | 6.1 |
| Assumption | 144.0 | ... | 18.8 | 25.0 | 93.9 | 6.3 |
| Avoyelles | 166.2 | 10.7 | 32.2 | 64.3 | 59.0 | ... |
| Iberia | 149.1 | ... | 7.1 | 35.5 | 99.4 | 7.1 |
| Iberville[2] | 332.7 | 35.0 | 29.2 | 175.1 | 87.6 | 5.8 |
| Lafourche | 143.7 | ... | ... | 45.7 | 78.4 | 19.6 |
| Pointe Coupee | 142.1 | 17.8 | 23.7 | 71.1 | 29.6 | ... |
| St. Charles | 58.8 | 3.7 | 3.7 | 11.0 | 22.0 | 18.4 |
| St. James | 79.3 | ... | ... | 13.2 | 46.3 | 19.8 |
| St. John Baptist | 96.0 | ... | ... | 8.0 | 64.0 | 24.0 |
| St. Landry | 188.8 | 16.2 | 10.8 | 75.5 | 80.9 | 5.4 |
| St. Martin | 305.4 | 30.5 | 12.2 | 134.4 | 103.8 | 24.4 |
| St. Mary | 139.4 | 6.1 | 24.2 | 12.1 | 90.9 | 6.1 |
| Terrebonne | 104.8 | ... | 13.1 | ... | 85.1 | 6.5 |
| West Feliciana | 158.6 | 54.9 | 30.5 | 48.8 | 24.4 | ... |
| All parishes | 2391.3 | 180.9 | 210.6 | 789.3 | 1061.0 | 149.5 |

[1] Lafayette and Vermillion included in Acadia.

[2] West Baton Rouge included in Iberville.

Table 6--Area of timberland, by parish and stocking classes of growing-stock trees, South Delta Louisiana, 1984

| Parish | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | > 130 | 100-130 | 60-100 | 16.7-60 | < 16.7 |
| | Thousand acres | | | | | |
| Acadia[1] | 97.5 | 10.3 | 10.3 | 41.1 | 30.8 | 5.1 |
| Ascension | 84.9 | 6.1 | 30.3 | 18.2 | 30.3 | ... |
| Assumption | 144.0 | 6.3 | 31.3 | 87.7 | 12.5 | 6.3 |
| Avoyelles | 166.2 | ... | 21.4 | 69.7 | 64.3 | 10.7 |
| Iberia | 149.1 | 14.2 | 14.2 | 56.8 | 56.8 | 7.1 |
| Iberville[2] | 332.7 | ... | 40.9 | 116.7 | 163.4 | 11.7 |
| Lafourche | 143.7 | 13.1 | 32.7 | 52.3 | 45.7 | ... |
| Pointe Coupee | 142.1 | 5.9 | 23.7 | 82.9 | 29.6 | ... |
| St. Charles | 58.8 | ... | 11.0 | 29.4 | 14.7 | 3.7 |
| St. James | 79.3 | 13.2 | 19.8 | 26.4 | 19.8 | ... |
| St. John Baptist | 96.0 | 16.0 | 8.0 | 32.0 | 24.0 | 16.0 |
| St. Landry | 188.8 | ... | 43.2 | 86.3 | 53.9 | 5.4 |
| St. Martin | 305.4 | ... | 73.3 | 103.8 | 103.8 | 24.4 |
| St. Mary | 139.4 | 6.1 | 42.4 | 36.4 | 24.2 | 30.3 |
| Terrebonne | 104.8 | 6.5 | 52.4 | 13.1 | 32.7 | ... |
| West Feliciana | 158.6 | ... | 18.3 | 54.9 | 79.3 | 6.1 |
| All parishes | 2391.3 | 97.6 | 473.2 | 907.6 | 786.1 | 126.8 |

[1] Lafayette and Vermillion included in Acadia.

[2] West Baton Rouge included in Iberville.

Table 7--Area of timberland by forest type and ownership class, South Delta Louisiana, 1984

| Forest type[1] | All ownerships | National forest | Other public | Forest industry | Forest industry-leased | Other private |
|---|---|---|---|---|---|---|
| | | | Thousand acres | | | |
| Loblolly-shortleaf pine | 55.9 | ... | ... | ... | ... | 55.9 |
| Softwood total | 55.9 | ... | ... | ... | ... | 55.9 |
| Oak-pine | 11.5 | ... | ... | ... | ... | 11.5 |
| Oak-hickory | 82.7 | ... | ... | 12.2 | ... | 70.5 |
| Oak-gum-cypress | 1989.8 | ... | 82.2 | 124.0 | 23.4 | 1760.2 |
| Elm-ash-cottonwood | 243.4 | ... | 55.4 | ... | ... | 188.0 |
| Hardwood total | 2327.4 | ... | 137.6 | 136.2 | 23.4 | 2030.3 |
| Nontyped[2] | 8.0 | ... | ... | ... | ... | 8.0 |
| All types | 2391.3 | ... | 137.6 | 136.2 | 23.4 | 2094.1 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

[2] Timberland with no current stocking.

Table 8--Area of timberland, by ownership and stocking classes of growing-stock trees, South Delta Louisiana, 1984

| Ownership class | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | > 130 | 100-130 | 60-100 | 16.7-60 | < 16.7 |
| | | | Thousand acres | | | |
| Other public | 137.6 | ... | 11.2 | 31.7 | 77.3 | 17.3 |
| Forest industry | 136.2 | ... | 29.0 | 84.6 | 22.7 | ... |
| Forest industry-leased | 23.4 | 6.1 | ... | 5.4 | 11.9 | ... |
| Other private | 2094.1 | 91.5 | 433.0 | 785.9 | 674.2 | 109.5 |
| All ownerships | 2391.3 | 97.6 | 473.2 | 907.6 | 786.1 | 126.8 |

Table 9--Area of timberland by forest type and stand-size class, South Delta Louisiana, 1984

| Forest type[1] | All classes | Stand-size class | | | Nonstocked areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | Thousand acres | | | | |
| Loblolly-shortleaf pine | 55.9 | 34.1 | 6.1 | 15.7 | ... |
| Softwood total | 55.9 | 34.1 | 6.1 | 15.7 | ... |
| Oak-pine | 11.5 | 6.1 | 5.4 | ... | ... |
| Oak-hickory | 82.7 | 53.2 | 18.3 | 6.1 | 5.1 |
| Oak-gum-cypress | 1989.8 | 1564.2 | 254.0 | 63.8 | 107.8 |
| Elm-ash-cottonwood | 243.4 | 149.1 | 72.7 | 15.8 | 5.8 |
| Hardwood total | 2327.4 | 1772.6 | 350.4 | 85.7 | 118.8 |
| Nontyped[2] | 8.0 | ... | ... | ... | 8.0 |
| All types | 2391.3 | 1806.7 | 356.5 | 101.4 | 126.8 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood type.

[2] Timberland with no current stocking.

Table 10--Number of live trees on timberland by species and diameter class, South Delta Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| Shortleaf-loblolly pine | 20660 | 9409 | 3764 | 1384 | 1955 | 1276 | 1304 | 919 | 376 | 159 | 96 | 17 | ... |
| Other yellow pines | 43 | ... | ... | ... | ... | ... | ... | 43 | ... | ... | ... | ... | ... |
| Cypress | 105387 | 19889 | 15811 | 13935 | 13698 | 11570 | 9533 | 6951 | 5569 | 3651 | 2279 | 2312 | 190 |
| Total softwoods | 126089 | 29298 | 19575 | 15320 | 15653 | 12846 | 10837 | 7912 | 5945 | 3810 | 2375 | 2329 | 190 |
| Select white oaks | 3463 | 1484 | 495 | 679 | 406 | ... | 113 | 49 | 105 | ... | 77 | 19 | 36 |
| Select red oaks | 5389 | 2035 | 1770 | 478 | 259 | 161 | 69 | 208 | 85 | 96 | 42 | 170 | 15 |
| Other white oaks | 19995 | 10259 | 4410 | 1385 | 1023 | 664 | 549 | 544 | 461 | 206 | 162 | 277 | 54 |
| Other red oaks | 41248 | 20917 | 5663 | 2598 | 2805 | 3005 | 1624 | 933 | 927 | 626 | 432 | 1375 | 343 |
| Hickory | 48964 | 27225 | 5946 | 6715 | 2760 | 2346 | 1206 | 1023 | 582 | 555 | 251 | 298 | 57 |
| Hard maple | 1713 | 1674 | ... | ... | ... | ... | ... | 38 | ... | ... | ... | ... | ... |
| Soft maple | 356094 | 248332 | 62580 | 20553 | 11157 | 6742 | 3199 | 1553 | 984 | 406 | 241 | 296 | 51 |
| Beech | 1894 | 1119 | 559 | ... | ... | 73 | ... | 47 | 36 | ... | 41 | 19 | ... |
| Sweetgum | 55851 | 19182 | 13765 | 5284 | 5483 | 4036 | 2877 | 2421 | 1175 | 491 | 536 | 553 | 48 |
| Tupelo-blackgum | 114941 | 17130 | 21198 | 13062 | 18397 | 15409 | 14185 | 8435 | 4271 | 1515 | 650 | 606 | 82 |
| Ash | 127392 | 70672 | 22515 | 10608 | 8141 | 5300 | 3573 | 2125 | 1774 | 1088 | 531 | 950 | 113 |
| Cottonwood-aspen | 5434 | 1086 | 1078 | 691 | 427 | 503 | 344 | 434 | 373 | 239 | 124 | 112 | 24 |
| Basswood | 53 | ... | ... | ... | ... | ... | ... | ... | 31 | ... | 21 | ... | ... |
| Yellow-poplar | 726 | 559 | ... | ... | ... | ... | 52 | 38 | 36 | ... | 21 | 19 | ... |
| Other hardwoods | 265868 | 163539 | 33999 | 20768 | 14564 | 9492 | 8001 | 4859 | 3963 | 2895 | 1250 | 2276 | 263 |
| Total hardwoods | 1049025 | 585216 | 173978 | 82821 | 65422 | 47731 | 35794 | 22707 | 14804 | 8116 | 4380 | 6970 | 1087 |
| Noncommercial | 76429 | 54263 | 7486 | 8976 | 3339 | 1583 | 261 | 201 | 34 | 83 | 62 | 111 | 30 |
| All species | 1251543 | 668777 | 201039 | 107117 | 84414 | 62160 | 46892 | 30820 | 20782 | 12009 | 6816 | 9410 | 1307 |

Table 11--Number of growing-stock trees on timberland by species and diameter class, South Delta Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| Shortleaf-loblolly pine | 15598 | 6587 | 2823 | 940 | 1647 | 1058 | 1183 | 833 | 276 | 138 | 96 | 17 | ... |
| Other yellow pines | 43 | ... | ... | ... | ... | ... | ... | 43 | ... | ... | ... | ... | ... |
| Cypress | 86110 | 11917 | 12215 | 12341 | 12665 | 8897 | 8933 | 6597 | 5245 | 3325 | 2028 | 1948 | ... |
| Total softwoods | 101751 | 18504 | 15038 | 13281 | 14312 | 9956 | 10116 | 7473 | 5521 | 3463 | 2124 | 1965 | ... |
| Select white oaks | 1264 | ... | ... | 458 | 406 | ... | 113 | 49 | 105 | ... | 77 | 19 | 36 |
| Select red oaks | 2942 | 470 | 1210 | 193 | 259 | 161 | 69 | 208 | 85 | 96 | 20 | 155 | 15 |
| Other white oaks | 9935 | 2053 | 3875 | 1138 | 917 | 416 | 374 | 324 | 307 | 157 | 141 | 196 | 36 |
| Other red oaks | 22060 | 7811 | 2657 | 1631 | 2180 | 2430 | 1459 | 802 | 897 | 546 | 373 | 1055 | 219 |
| Hickory | 13695 | 4119 | 1086 | 2392 | 1439 | 1591 | 845 | 859 | 453 | 455 | 176 | 232 | 51 |
| Hard maple | 38 | ... | ... | ... | ... | ... | ... | 38 | ... | ... | ... | ... | ... |
| Soft maple | 73940 | 32546 | 21205 | 8591 | 6142 | 2653 | 1375 | 586 | 488 | 155 | 78 | 109 | 10 |
| Beech | 1205 | 559 | 559 | ... | ... | ... | ... | 47 | ... | ... | 20 | 19 | ... |
| Sweetgum | 30166 | 6322 | 8206 | 2801 | 3732 | 2712 | 2251 | 1902 | 978 | 414 | 472 | 365 | 10 |
| Tupelo-blackgum | 66081 | 4329 | 7186 | 6824 | 13577 | 12563 | 9948 | 6568 | 3115 | 1119 | 544 | 308 | ... |
| Ash | 36309 | 7563 | 8774 | 5274 | 4393 | 3550 | 2441 | 1378 | 1278 | 688 | 370 | 578 | 23 |
| Cottonwood-aspen | 4212 | 543 | 543 | 691 | 427 | 503 | 344 | 390 | 342 | 214 | 102 | 97 | 16 |
| Yellow-poplar | 674 | 559 | ... | ... | ... | ... | ... | 38 | 36 | ... | 21 | 19 | ... |
| Other hardwoods | 78627 | 24048 | 12802 | 10779 | 9985 | 6393 | 5149 | 3189 | 2489 | 1816 | 801 | 1130 | 47 |
| Total hardwoods | 341148 | 90923 | 68104 | 40771 | 43457 | 32971 | 24369 | 16377 | 10574 | 5659 | 3197 | 4282 | 464 |
| All species | 442900 | 109426 | 83142 | 54052 | 57769 | 42927 | 34485 | 23850 | 16095 | 9123 | 5321 | 6247 | 464 |

Table 12--Volume of growing stock on timberland by species and diameter class, South Delta Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | | | |
| Shortleaf-loblolly pine | 106.7 | 2.8 | 10.3 | 13.8 | 25.8 | 26.0 | 12.1 | 7.9 | 6.4 | 1.6 | ... |
| Other yellow pines | 1.1 | ... | ... | ... | ... | 1.1 | ... | ... | ... | ... | ... |
| Cypress | 1198.1 | 19.7 | 66.8 | 103.6 | 167.6 | 183.1 | 199.1 | 162.3 | 124.2 | 171.7 | ... |
| Total softwoods | 1305.9 | 22.5 | 77.1 | 117.4 | 193.4 | 210.2 | 211.2 | 170.2 | 130.6 | 173.3 | ... |
| Select white oaks | 15.6 | 0.8 | 1.6 | ... | 1.0 | 0.7 | 2.6 | ... | 3.7 | 1.3 | 3.8 |
| Select red oaks | 31.4 | 0.6 | 1.4 | 1.4 | 0.9 | 4.7 | 2.7 | 4.4 | 0.7 | 12.3 | 2.3 |
| Other white oaks | 49.5 | 2.1 | 4.3 | 3.0 | 4.9 | 6.0 | 6.9 | 4.8 | 4.5 | 9.6 | 3.4 |
| Other red oaks | 274.7 | 4.1 | 10.3 | 23.8 | 23.3 | 17.0 | 29.1 | 22.7 | 17.8 | 92.1 | 34.4 |
| Hickory | 129.5 | 6.3 | 6.8 | 14.1 | 14.0 | 17.1 | 12.2 | 21.0 | 9.9 | 19.5 | 8.6 |
| Hard maple | 1.1 | ... | ... | ... | ... | 1.1 | ... | ... | ... | ... | ... |
| Soft maple | 140.2 | 17.8 | 32.5 | 24.5 | 21.0 | 13.8 | 12.4 | 7.0 | 3.3 | 6.8 | 1.2 |
| Beech | 1.8 | ... | ... | ... | ... | 0.5 | ... | ... | 0.7 | 0.6 | ... |
| Sweetgum | 282.4 | 6.0 | 22.7 | 30.2 | 43.9 | 50.5 | 39.1 | 23.2 | 31.2 | 32.9 | 2.7 |
| Tupelo-blackgum | 691.7 | 12.5 | 63.7 | 123.9 | 160.2 | 143.2 | 95.1 | 45.4 | 26.3 | 21.6 | ... |
| Ash | 267.9 | 13.8 | 22.0 | 35.5 | 39.4 | 32.8 | 33.4 | 28.8 | 17.5 | 41.5 | 3.3 |
| Cottonwood-aspen | 77.2 | 1.7 | 2.0 | 6.8 | 8.4 | 13.5 | 12.8 | 10.6 | 7.9 | 10.3 | 3.2 |
| Yellow-poplar | 4.7 | ... | ... | ... | ... | 1.4 | 0.9 | ... | 1.4 | 0.9 | ... |
| Other hardwoods | 576.2 | 21.3 | 49.8 | 62.7 | 82.3 | 74.4 | 79.2 | 69.5 | 41.1 | 90.9 | 5.0 |
| Total hardwoods | 2543.7 | 87.0 | 217.1 | 325.7 | 399.3 | 376.6 | 326.4 | 237.3 | 165.9 | 340.4 | 67.9 |
| All species | 3849.6 | 109.5 | 294.2 | 443.2 | 592.7 | 586.8 | 537.6 | 407.5 | 296.5 | 513.7 | 67.9 |

Table 13--Volume of growing stock in the saw-log portion of sawtimber[1] trees on timberland by species and diameter class, South Delta Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | |
| Shortleaf-loblolly pine | 84.6 | 11.7 | 22.7 | 23.6 | 11.2 | 7.6 | 6.2 | 1.6 | ... |
| Other yellow pines | 1.0 | ... | ... | 1.0 | ... | ... | ... | ... | ... |
| Cypress | 913.6 | 27.6 | 133.2 | 152.1 | 172.4 | 146.5 | 115.4 | 166.5 | ... |
| Total softwoods | 999.2 | 39.3 | 155.9 | 176.7 | 183.6 | 154.1 | 121.6 | 168.1 | ... |
| Select white oaks | 11.4 | ... | 0.9 | 0.6 | 2.4 | ... | 3.2 | 1.1 | 3.3 |
| Select red oaks | 24.6 | ... | 0.8 | 4.1 | 2.4 | 3.8 | 0.6 | 10.9 | 2.0 |
| Other white oaks | 35.5 | ... | 4.5 | 5.3 | 6.1 | 4.2 | 4.1 | 8.4 | 2.9 |
| Other red oaks | 206.2 | ... | 20.4 | 14.8 | 25.4 | 19.8 | 15.5 | 80.4 | 29.9 |
| Hickory | 88.4 | ... | 10.9 | 13.8 | 10.3 | 18.0 | 8.7 | 18.2 | 8.4 |
| Hard maple | 0.9 | ... | ... | 0.9 | ... | ... | ... | ... | ... |
| Soft maple | 54.2 | ... | 16.1 | 11.3 | 10.3 | 5.9 | 3.0 | 6.4 | 1.2 |
| Beech | 1.6 | ... | ... | 0.4 | ... | ... | 0.7 | 0.5 | ... |
| Sweetgum | 188.5 | ... | 34.1 | 41.0 | 32.8 | 20.0 | 27.7 | 30.3 | 2.6 |
| Tupelo-blackgum | 422.8 | ... | 128.9 | 121.4 | 84.0 | 42.3 | 24.8 | 21.3 | ... |
| Ash | 165.5 | ... | 30.6 | 26.3 | 27.7 | 24.8 | 15.1 | 37.9 | 3.2 |
| Cottonwood-aspen | 56.0 | ... | 6.2 | 10.7 | 10.5 | 9.0 | 6.9 | 9.5 | 3.0 |
| Yellow-poplar | 4.0 | ... | ... | 1.1 | 0.7 | ... | 1.2 | 0.9 | ... |
| Other hardwoods | 372.0 | ... | 62.4 | 59.5 | 65.7 | 60.1 | 36.1 | 83.3 | 4.9 |
| Total hardwoods | 1631.5 | ... | 315.8 | 311.4 | 278.4 | 207.9 | 147.5 | 309.0 | 61.4 |
| All species | 2630.6 | 39.3 | 471.7 | 488.0 | 462.0 | 362.0 | 269.1 | 477.1 | 61.4 |

[1] That part of the bole of sawtimber trees between the 1-foot stump and the saw-log top, including the portion of the forks large enough to contain a saw log.

Table 14--Volume of sawtimber on timberland by species and diameter class, South Delta Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million board feet | | | | | | | | |
| Shortleaf-loblolly pine | 486.9 | 56.6 | 119.7 | 135.0 | 70.3 | 50.3 | 43.4 | 11.5 | ... |
| Other yellow pines | 5.7 | ... | ... | 5.7 | ... | ... | ... | ... | ... |
| Cypress | 4316.3 | 129.0 | 521.9 | 658.2 | 793.8 | 705.5 | 588.2 | 919.6 | ... |
| Total softwoods | 4808.9 | 185.6 | 641.7 | 798.9 | 864.1 | 755.8 | 631.6 | 931.2 | ... |
| Select white oaks | 59.3 | ... | 4.2 | 2.9 | 11.4 | ... | 16.4 | 6.0 | 18.5 |
| Select red oaks | 127.1 | ... | 3.8 | 20.1 | 11.9 | 19.3 | 2.9 | 57.8 | 11.3 |
| Other white oaks | 177.4 | ... | 21.3 | 25.7 | 28.6 | 21.3 | 19.4 | 44.6 | 16.4 |
| Other red oaks | 1070.2 | ... | 95.6 | 71.4 | 123.3 | 99.7 | 79.2 | 431.9 | 169.1 |
| Hickory | 448.2 | ... | 44.0 | 59.2 | 48.2 | 90.4 | 45.7 | 106.7 | 53.9 |
| Hard maple | 4.1 | ... | ... | 4.1 | ... | ... | ... | ... | ... |
| Soft maple | 245.7 | ... | 64.7 | 46.3 | 48.2 | 29.7 | 15.4 | 34.5 | 6.9 |
| Beech | 8.1 | ... | ... | 1.7 | ... | ... | 3.8 | 2.6 | ... |
| Sweetgum | 937.7 | ... | 139.2 | 186.6 | 158.7 | 105.3 | 152.0 | 179.0 | 16.9 |
| Tupelo-blackgum | 1848.9 | ... | 509.5 | 520.4 | 381.4 | 198.4 | 124.3 | 115.0 | ... |
| Ash | 800.5 | ... | 120.7 | 113.9 | 128.6 | 121.7 | 79.0 | 215.4 | 21.0 |
| Cottonwood-aspen | 277.2 | ... | 25.2 | 47.4 | 48.4 | 45.3 | 36.7 | 54.8 | 19.3 |
| Yellow-poplar | 21.6 | ... | ... | 5.4 | 3.6 | ... | 6.7 | 5.9 | ... |
| Other hardwoods | 1801.6 | ... | 251.2 | 259.9 | 304.4 | 293.9 | 188.3 | 473.6 | 30.3 |
| Total hardwoods | 7827.5 | ... | 1279.3 | 1365.1 | 1296.8 | 1025.0 | 769.8 | 1727.9 | 363.6 |
| All species | 12636.4 | 185.6 | 1921.0 | 2164.0 | 2160.9 | 1780.8 | 1401.4 | 2659.1 | 363.6 |

Table 15--Volume of growing stock and sawtimber on timberland by parish and species group, South Delta Louisiana, 1984

| Parish | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Acadia[3] | 130.7 | ... | 13.9 | 10.1 | 82.4 | 24.2 | 424.3 | ... | 71.6 | 39.5 | 221.6 | 91.7 |
| Ascension | 150.6 | ... | 24.3 | 18.6 | 63.2 | 44.5 | 487.9 | ... | 117.9 | 69.5 | 161.4 | 139.2 |
| Assumption | 254.3 | ... | ... | 128.5 | 106.4 | 19.4 | 704.2 | ... | ... | 431.6 | 227.5 | 45.1 |
| Avoyelles | 229.7 | ... | 24.0 | 40.7 | 57.3 | 107.7 | 822.9 | ... | 107.9 | 143.8 | 169.8 | 401.5 |
| Iberia | 190.2 | ... | ... | 94.5 | 60.3 | 35.4 | 510.6 | ... | ... | 263.3 | 151.0 | 96.3 |
| Iberville[4] | 432.5 | ... | ... | 89.6 | 202.9 | 140.0 | 1559.7 | ... | ... | 339.1 | 700.1 | 520.5 |
| Lafourche | 315.6 | ... | ... | 139.2 | 121.9 | 54.4 | 1116.4 | ... | ... | 583.3 | 387.7 | 145.4 |
| Pointe Coupee | 248.2 | ... | ... | 11.8 | 128.6 | 107.8 | 920.8 | ... | ... | 52.4 | 439.7 | 428.6 |
| St. Charles | 83.1 | ... | ... | 29.2 | 38.0 | 15.9 | 259.3 | ... | ... | 122.3 | 114.8 | 22.2 |
| St. James | 206.7 | ... | ... | 93.8 | 61.2 | 51.7 | 675.7 | ... | ... | 391.3 | 147.3 | 137.1 |
| St. John Baptist | 198.1 | ... | ... | 106.3 | 82.7 | 9.2 | 700.5 | ... | ... | 447.8 | 229.3 | 23.3 |
| St. Landry | 332.8 | ... | 7.2 | 49.0 | 146.2 | 130.4 | 1226.2 | ... | 24.9 | 173.5 | 497.9 | 529.9 |
| St. Martin | 446.5 | ... | ... | 141.8 | 238.0 | 66.8 | 1294.4 | ... | ... | 477.0 | 708.9 | 108.4 |
| St. Mary | 190.6 | ... | ... | 76.1 | 92.8 | 21.6 | 498.1 | ... | ... | 248.0 | 204.6 | 45.5 |
| Terrebonne | 233.7 | ... | ... | 136.9 | 75.5 | 21.3 | 704.3 | ... | ... | 404.1 | 262.2 | 38.0 |
| West Feliciana | 206.3 | ... | 38.4 | 31.9 | 82.0 | 53.9 | 731.2 | ... | 170.3 | 129.9 | 246.3 | 184.8 |
| All parishes | 3849.6 | ... | 107.9 | 1198.1 | 1639.3 | 904.3 | 12636.4 | ... | 492.5 | 4316.3 | 4870.2 | 2957.3 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Lafayette and Vermillion included in Acadia.

[4] West Baton Rouge included in Iberville.

Table 16--Volume of timber on timberland by class of timber and species group, South Delta Louisiana, 1984

| Class of timber | All species | Softwood | | | Hardwood | |
|---|---|---|---|---|---|---|
| | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | |
| | Million cubic feet | | | | | |
| Sawtimber trees: | | | | | | |
| Saw-log portion | 2630.6 | ... | 85.6 | 913.6 | 1040.8 | 590.6 |
| Upper-stem portion | 489.5 | ... | 9.2 | 198.0 | 185.9 | 96.5 |
| Total | 3120.2 | ... | 94.8 | 1111.6 | 1226.7 | 687.1 |
| Poletimber trees | 729.4 | ... | 13.1 | 86.5 | 412.6 | 217.2 |
| All growing-stock trees | 3849.6 | ... | 107.9 | 1198.1 | 1639.3 | 904.3 |
| Rough trees: | | | | | | |
| Sawtimber size | 638.9 | ... | 12.2 | 77.0 | 383.7 | 166.0 |
| Poletimber size | 254.0 | ... | 1.9 | 4.5 | 117.4 | 130.1 |
| Total | 892.8 | ... | 14.0 | 81.5 | 501.1 | 296.2 |
| Rotten trees: | | | | | | |
| Sawtimber size | 149.1 | ... | ... | 35.4 | 51.0 | 62.7 |
| Poletimber size | 11.0 | ... | ... | ... | 4.4 | 6.6 |
| Total | 160.1 | ... | ... | 35.4 | 55.4 | 69.3 |
| Salvable dead trees: | | | | | | |
| Sawtimber size | 12.4 | ... | 0.6 | 2.2 | 7.1 | 2.5 |
| Poletimber size | 3.1 | ... | ... | ... | 0.3 | 2.7 |
| Total | 15.5 | ... | 0.6 | 2.2 | 7.4 | 5.2 |
| All classes | 4918.0 | ... | 122.5 | 1317.2 | 2203.3 | 1275.0 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 17--Volume of live trees and growing stock on timberland by ownership class and species group, South Delta Louisiana, 1984

| Ownership class | Live trees | | | | | | Growing stock | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | | | | | | |
| Other public | 229.7 | ... | ... | 35.3 | 131.1 | 63.2 | 138.5 | ... | ... | 29.3 | 72.5 | 36.7 |
| Forest industry | 330.9 | ... | ... | 54.1 | 168.3 | 108.4 | 272.8 | ... | ... | 49.0 | 134.5 | 89.3 |
| Forest industry-leased | 38.6 | ... | ... | 9.8 | 19.0 | 9.7 | 33.6 | ... | ... | 9.8 | 14.9 | 8.9 |
| Other private | 4303.3 | ... | 121.9 | 1215.7 | 1877.3 | 1088.4 | 3404.6 | ... | 107.9 | 1109.8 | 1417.5 | 769.5 |
| All ownerships | 4902.5 | ... | 121.9 | 1315.0 | 2195.9 | 1269.8 | 3849.6 | ... | 107.9 | 1198.1 | 1639.3 | 904.3 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 18--Average net annual growth of growing stock and sawtimber on timberland by parish and species group, South Delta Louisiana, 1984

| Parish | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Acadia[3] | 4.2 | ... | 0.9 | 0.2 | 1.9 | 1.1 | 21.3 | ... | 5.1 | 1.2 | 9.5 | 5.5 |
| Ascension | 5.2 | ... | 1.1 | 0.6 | 1.5 | 2.1 | 21.8 | ... | 6.9 | 2.2 | 4.7 | 8.0 |
| Assumption | 1.1 | ... | ... | 1.1 | -0.7 | 0.8 | 12.7 | ... | ... | 6.4 | 3.6 | 2.8 |
| Avoyelles | 6.8 | ... | 1.4 | 0.7 | 1.6 | 3.1 | 32.7 | ... | 7.9 | 3.6 | 7.0 | 14.2 |
| Iberia | 3.9 | ... | ... | 1.0 | 1.3 | 1.6 | 18.4 | ... | ... | 8.5 | 4.6 | 5.3 |
| Iberville[4] | 7.1 | ... | ... | 1.0 | 4.1 | 1.9 | 35.2 | ... | ... | 8.1 | 16.9 | 10.3 |
| Lafourche | 6.5 | ... | ... | 3.0 | 1.8 | 1.6 | 33.6 | ... | ... | 16.7 | 9.5 | 7.4 |
| Pointe Coupee | 10.0 | ... | ... | 0.2 | 5.4 | 4.5 | 42.7 | ... | ... | 1.0 | 22.3 | 19.4 |
| St. Charles | 2.9 | ... | ... | 0.2 | 1.9 | 0.8 | 8.7 | ... | ... | 1.2 | 6.4 | 1.1 |
| St. James | 3.1 | ... | ... | 1.7 | -0.4 | 1.8 | 16.8 | ... | ... | 8.5 | 1.0 | 7.3 |
| St. John Baptist | -0.7 | ... | ... | 0.8 | -1.5 | ... | 7.4 | ... | ... | 6.9 | 0.2 | 0.3 |
| St. Landry | 13.2 | ... | 0.4 | 1.2 | 6.3 | 5.2 | 59.4 | ... | 2.2 | 5.7 | 25.9 | 25.5 |
| St. Martin | 10.7 | ... | ... | 2.9 | 5.2 | 2.6 | 43.6 | ... | ... | 13.7 | 22.5 | 7.3 |
| St. Mary | 3.0 | ... | ... | 1.3 | 1.4 | 0.3 | 13.2 | ... | ... | 7.6 | 4.2 | 1.3 |
| Terrebonne | 3.4 | ... | ... | 3.1 | 0.2 | 0.1 | 19.2 | ... | ... | 11.8 | 6.5 | 0.9 |
| West Feliciana | 4.4 | ... | 0.4 | 0.1 | 3.0 | 0.9 | 25.0 | ... | 5.2 | 1.7 | 13.0 | 5.1 |
| All parishes | 84.7 | ... | 4.2 | 19.1 | 33.0 | 28.5 | 411.7 | ... | 27.3 | 104.8 | 157.8 | 121.8 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Lafayette and Vermillion included in Acadia.

[4] West Baton Rouge included in Iberville.

Table 19--Average annual removals of growing stock and sawtimber by parish and species group, South Delta Louisiana, 1984

| Parish | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Acadia[3] | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Ascension | 2.5 | ... | ... | ... | 1.1 | 1.4 | 5.6 | ... | ... | ... | 2.1 | 3.5 |
| Assumption | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Avoyelles | 5.1 | ... | 0.2 | 1.1 | 1.0 | 2.7 | 17.3 | ... | ... | 4.8 | 3.5 | 9.1 |
| Iberia | 1.1 | ... | ... | ... | 0.2 | 0.8 | 3.5 | ... | ... | ... | 0.5 | 3.0 |
| Iberville[4] | 2.2 | ... | ... | ... | 1.7 | 0.5 | 6.1 | ... | ... | ... | 4.2 | 1.9 |
| Lafourche | 1.7 | ... | ... | 0.3 | 0.5 | 0.8 | 7.5 | ... | ... | 1.4 | 2.2 | 3.9 |
| Pointe Coupee | 4.3 | ... | ... | ... | 2.1 | 2.2 | 14.7 | ... | ... | ... | 6.9 | 7.8 |
| St. Charles | 0.7 | ... | ... | 0.4 | ... | 0.2 | 1.9 | ... | ... | 1.9 | ... | ... |
| St. James | 0.3 | ... | ... | ... | 0.2 | 0.1 | 0.4 | ... | ... | ... | 0.4 | ... |
| St. John Baptist | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| St. Landry | 6.8 | ... | 1.4 | 0.5 | 2.0 | 3.0 | 24.0 | ... | 7.0 | 1.7 | 4.9 | 10.3 |
| St. Martin | 1.2 | ... | ... | 0.5 | ... | 0.7 | 5.1 | ... | ... | 2.2 | ... | 2.9 |
| St. Mary | 0.1 | ... | ... | ... | ... | 0.1 | ... | ... | ... | ... | ... | ... |
| Terrebonne | 0.5 | ... | ... | 0.1 | 0.4 | 0.1 | 1.4 | ... | ... | 0.5 | 0.6 | 0.3 |
| West Feliciana | 2.0 | ... | 0.5 | ... | 0.9 | 0.6 | 7.7 | ... | 2.8 | ... | 3.2 | 1.7 |
| All parishes | 28.3 | ... | 2.0 | 2.9 | 10.2 | 13.2 | 95.1 | ... | 9.8 | 12.6 | 28.4 | 44.4 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Lafayette and Vermillion included in Acadia.

[4] West Baton Rouge included in Iberville.

Table 20--Average net annual growth and average annual removals of growing stock on timberland, South Delta Louisiana, 1984

| Species | Growth | Removals |
|---|---|---|
| | Million cubic feet | |
| Yellow pines | 4.2 | 2.0 |
| Other softwoods | 19.1 | 2.9 |
| Total softwoods | 23.3 | 4.9 |
| Select white-red oaks | 2.3 | 0.8 |
| Other white-red oaks | 13.5 | 5.2 |
| Hickory | 3.7 | 2.6 |
| Sweetgum | 8.7 | 4.4 |
| Ash-walnut-black cherry | 5.7 | 3.4 |
| Yellow-poplar | 0.2 | 0.1 |
| Other hardwoods | 27.4 | 7.0 |
| Total hardwoods | 61.4 | 23.4 |
| All species | 84.7 | 28.3 |

Table 21--Average net annual growth and average annual removals of sawtimber on timberland, South Delta Louisiana, 1984

| Species | Growth | Removals |
|---|---|---|
| | Million board feet | |
| Yellow pines | 27.3 | 9.8 |
| Other softwoods | 104.8 | 12.6 |
| Total softwoods | 132.1 | 22.4 |
| Select white-red oaks | 10.2 | 3.2 |
| Other white-red oaks | 59.6 | 19.7 |
| Hickory | 18.8 | 9.3 |
| Hard maple | ... | ... |
| Sweetgum | 39.0 | 10.7 |
| Ash-walnut-black cherry | 24.9 | 10.0 |
| Yellow-poplar | 1.1 | 0.2 |
| Other hardwoods | 126.0 | 19.6 |
| Total hardwoods | 279.6 | 72.8 |
| All species | 411.7 | 95.1 |

Table 22--Average annual mortality of growing stock and sawtimber on timberland by species, South Delta Louisiana, 1984

| Species | Growing stock | Sawtimber |
|---|---|---|
| | - Million cubic feet - | - Million board feet - |
| Yellow pines | 0.8 | 1.4 |
| Other softwoods | 0.7 | 1.7 |
| Total softwoods | 1.4 | 3.1 |
| Select white-red oaks | 0.1 | 0.5 |
| Other white-red oaks | 2.2 | 4.9 |
| Hickory | 1.0 | 2.2 |
| Sweetgum | 2.3 | 5.8 |
| Ash-walnut-black cherry | 2.3 | 5.0 |
| Other hardwoods | 20.0 | 54.7 |
| Total hardwoods | 27.9 | 73.3 |
| All species | 29.4 | 76.3 |

Table 23--Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, South Delta Louisiana, 1984

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | | | | | | |
| Other public | 4.0 | ... | ... | 0.4 | 2.1 | 1.5 | 1.5 | ... | ... | ... | 0.4 | 1.1 |
| Forest industry | 6.7 | ... | ... | 0.5 | 3.8 | 2.5 | 0.3 | ... | ... | ... | 0.1 | 0.2 |
| Forest industry-leased | 0.4 | ... | ... | 0.4 | 0.4 | -0.3 | 0.3 | ... | ... | ... | ... | 0.3 |
| Other private | 73.5 | ... | 4.2 | 17.9 | 26.7 | 24.8 | 26.2 | ... | 2.0 | 2.9 | 9.7 | 11.6 |
| All ownerships | 84.7 | ... | 4.2 | 19.1 | 33.0 | 28.5 | 28.3 | ... | 2.0 | 2.9 | 10.2 | 13.2 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 24--Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, South Delta Louisiana, 1984

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million board feet | | | | | | | | | | | |
| Other public | 17.0 | ... | ... | 2.1 | 8.6 | 6.4 | 6.6 | ... | ... | ... | 2.0 | 4.6 |
| Forest industry | 32.4 | ... | ... | 2.4 | 17.6 | 12.4 | 0.6 | ... | ... | ... | ... | 0.6 |
| Forest industry-leased | 2.9 | ... | ... | 1.2 | 2.0 | -0.4 | 1.5 | ... | ... | ... | ... | 1.5 |
| Other private | 359.3 | ... | 27.3 | 99.1 | 129.6 | 103.3 | 86.5 | ... | 9.8 | 12.6 | 26.4 | 37.7 |
| All ownerships | 411.7 | ... | 27.3 | 104.8 | 157.8 | 121.8 | 95.1 | ... | 9.8 | 12.6 | 28.4 | 44.4 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 25--Volume of sawtimber on timberland by species and tree grade, South Delta Louisiana, 1984

| Species | All grades | Grade 1 | Grade 2 | Grade 3 | Grade 4 |
|---|---|---|---|---|---|
| | Million board feet | | | | |
| Yellow pines | 492.5 | 64.0 | 40.0 | 388.5 | ... |
| Cypress | 4316.3 | 1200.3 | 1175.6 | 1940.4 | ... |
| Total softwoods | 4808.9 | 1264.3 | 1215.6 | 2329.0 | ... |
| Select white-red oaks | 186.5 | 35.2 | 81.9 | 44.6 | 24.8 |
| Other white-red oaks | 1247.6 | 154.0 | 268.3 | 441.2 | 384.1 |
| Hickory | 448.2 | 58.7 | 130.6 | 179.4 | 79.5 |
| Hard maple | 4.1 | ... | 4.1 | ... | ... |
| Sweetgum | 937.7 | 140.9 | 276.3 | 421.3 | 99.2 |
| Tupelo and blackgum | 1848.9 | 276.6 | 489.4 | 1036.3 | 46.5 |
| Ash-walnut-black cherry | 802.9 | 134.6 | 260.8 | 387.1 | 20.4 |
| Yellow-poplar | 21.6 | ... | ... | ... | 21.6 |
| Other hardwoods | 2330.1 | 257.5 | 662.3 | 1038.2 | 372.1 |
| Total hardwoods | 7827.5 | 1057.5 | 2173.7 | 3548.1 | 1048.2 |
| All species | 12636.4 | 2321.8 | 3389.3 | 5877.0 | 1048.2 |

## SUPPLEMENTAL TABLES 26 - 36

Table 26--Area of timberland by stand age, forest type group, and type of regeneration, South Delta Louisiana, 1984

| Stand Age Class | Pine | | Oak-pine | | Other hardwood types | |
|---|---|---|---|---|---|---|
| | Artifical | Natural | Artifical | Natural | Artifical | Natural |
| | Thousand acres | | | | | |
| 1-10 | ... | ... | ... | ... | ... | 21.0 |
| 11-20 | ... | 5.1 | ... | ... | 5.9 | 5.8 |
| 21-30 | ... | 11.2 | ... | ... | 6.1 | 5.4 |
| 31-40 | ... | 16.8 | ... | ... | ... | ... |
| 41-50 | ... | ... | ... | ... | ... | ... |
| >50 | ... | ... | ... | ... | ... | 5.9 |
| Mixed | ... | 22.7 | ... | 11.5 | ... | 2265.8 |
| All classes | ... | 55.9 | ... | 11.5 | 12.0 | 2303.9 |

Table 27--Volume of softwood growing stock on timberland by forest type, South Delta Louisiana, 1984

| Parish | Total | Forest type group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | | | | |
| | Million cubic feet | | | | | | |
| Acadia[1] | 24.0 | ... | 13.9 | ... | ... | 10.1 | ... |
| Ascension | 42.9 | ... | 23.2 | ... | 1.1 | 18.6 | ... |
| Assumption | 128.5 | ... | ... | ... | ... | 128.5 | ... |
| Avoyelles | 64.7 | ... | 24.0 | ... | ... | 40.7 | ... |
| Iberia | 94.5 | ... | ... | ... | ... | 89.6 | 4.9 |
| Iberville[2] | 89.6 | ... | ... | ... | ... | 79.2 | 10.4 |
| Lafourche | 139.2 | ... | ... | ... | ... | 139.2 | ... |
| Pointe Coupee | 11.8 | ... | ... | ... | ... | 11.8 | ... |
| St. Charles | 29.2 | ... | ... | ... | ... | 29.2 | ... |
| St. James | 93.8 | ... | ... | ... | ... | 93.8 | ... |
| St. John Baptist | 106.3 | ... | ... | ... | ... | 106.3 | ... |
| St. Landry | 56.2 | ... | 3.1 | 4.1 | ... | 48.2 | 0.8 |
| St. Martin | 141.8 | ... | ... | ... | ... | 126.7 | 15.0 |
| St. Mary | 76.1 | ... | ... | ... | ... | 76.1 | ... |
| Terrebonne | 136.9 | ... | ... | ... | ... | 136.9 | ... |
| West Feliciana | 70.4 | ... | 32.3 | 4.0 | 2.2 | 31.9 | ... |
| All parishes | 1305.9 | ... | 96.4 | 8.1 | 3.3 | 1167.0 | 31.1 |

[1] Lafayette and Vermillion included in Acadia.

[2] West Baton Rouge included in Iberville.

Table 28--Volume of hardwood growing stock on timberland by forest type, South Delta Louisiana, 1984

| Parish | Total | Forest type group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | | | | |
| | Million cubic feet | | | | | | |
| Acadia[1] | 106.7 | ... | 2.3 | ... | 4.8 | 99.2 | 0.3 |
| Ascension | 107.7 | ... | 1.1 | ... | 1.1 | 105.5 | ... |
| Assumption | 125.8 | ... | ... | ... | ... | 122.4 | 3.4 |
| Avoyelles | 165.0 | ... | 5.9 | ... | 6.1 | 153.0 | ... |
| Iberia | 95.7 | ... | ... | ... | ... | 77.8 | 18.0 |
| Iberville[2] | 342.9 | ... | ... | ... | ... | 286.3 | 56.5 |
| Lafourche | 176.3 | ... | ... | ... | ... | 176.3 | ... |
| Pointe Coupee | 236.4 | ... | ... | ... | ... | 229.3 | 7.0 |
| St. Charles | 53.9 | ... | ... | ... | ... | 42.6 | 11.3 |
| St. James | 112.8 | ... | ... | ... | ... | 112.8 | ... |
| St. John Baptist | 91.9 | ... | ... | ... | ... | 91.9 | ... |
| St. Landry | 276.6 | ... | 1.0 | ... | ... | 253.9 | 21.7 |
| St. Martin | 304.8 | ... | ... | ... | 7.4 | 184.5 | 112.8 |
| St. Mary | 114.4 | ... | ... | ... | ... | 104.6 | 9.9 |
| Terrebonne | 96.8 | ... | ... | ... | ... | 96.8 | ... |
| West Feliciana | 136.0 | ... | 12.0 | 1.6 | 49.4 | 68.1 | 4.9 |
| All parishes | 2543.7 | ... | 22.3 | 1.6 | 68.8 | 2205.1 | 245.9 |

[1] Lafayette and Vermillion included in Acadia.

[2] West Baton Rouge included in Iberville.

Table 29--Volume of softwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, South Delta Louisiana, 1984

| Parish | Total | Forest type group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | | | | |
| | Million cubic feet | | | | | | |
| Acadia[1] | 19.9 | ... | 11.6 | ... | ... | 8.3 | ... |
| Ascension | 34.5 | ... | 19.0 | ... | 1.0 | 14.5 | ... |
| Assumption | 93.8 | ... | ... | ... | ... | 93.8 | ... |
| Avoyelles | 50.5 | ... | 19.4 | ... | ... | 31.1 | ... |
| Iberia | 60.3 | ... | ... | ... | ... | 57.3 | 3.0 |
| Iberville[2] | 71.0 | ... | ... | ... | ... | 62.3 | 8.8 |
| Lafourche | 118.2 | ... | ... | ... | ... | 118.2 | ... |
| Pointe Coupee | 10.3 | ... | ... | ... | ... | 10.3 | ... |
| St. Charles | 25.1 | ... | ... | ... | ... | 25.1 | ... |
| St. James | 78.2 | ... | ... | ... | ... | 78.2 | ... |
| St. John Baptist | 92.3 | ... | ... | ... | ... | 92.3 | ... |
| St. Landry | 42.2 | ... | 2.8 | 1.8 | ... | 37.6 | ... |
| St. Martin | 103.9 | ... | ... | ... | ... | 96.1 | 7.8 |
| St. Mary | 55.6 | ... | ... | ... | ... | 55.6 | ... |
| Terrebonne | 86.1 | ... | ... | ... | ... | 86.1 | ... |
| West Feliciana | 57.2 | ... | 24.2 | 3.7 | 2.1 | 27.3 | ... |
| All parishes | 999.2 | ... | 77.0 | 5.5 | 3.1 | 894.0 | 19.6 |

[1] Lafayette and Vermillion included in Acadia.

[2] West Baton Rouge included in Iberville.

Table 30--Volume of hardwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, South Delta Louisiana, 1984

| Parish | Total | Forest type group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | | | | |
| | Million cubic feet | | | | | | |
| Acadia[1] | 67.8 | ... | 1.8 | ... | 3.5 | 62.6 | ... |
| Ascension | 63.3 | ... | ... | ... | 0.9 | 62.3 | ... |
| Assumption | 62.9 | ... | ... | ... | ... | 62.9 | ... |
| Avoyelles | 112.6 | ... | 4.4 | ... | 4.2 | 104.0 | ... |
| Iberia | 55.1 | ... | ... | ... | ... | 42.3 | 12.8 |
| Iberville[2] | 245.0 | ... | ... | ... | ... | 206.1 | 38.9 |
| Lafourche | 114.2 | ... | ... | ... | ... | 114.2 | ... |
| Pointe Coupee | 174.2 | ... | ... | ... | ... | 168.7 | 5.5 |
| St. Charles | 28.7 | ... | ... | ... | ... | 22.8 | 6.0 |
| St. James | 62.3 | ... | ... | ... | ... | 62.3 | ... |
| St. John Baptist | 58.9 | ... | ... | ... | ... | 58.9 | ... |
| St. Landry | 201.7 | ... | 0.9 | ... | ... | 183.6 | 17.3 |
| St. Martin | 173.4 | ... | ... | ... | 1.4 | 103.9 | 68.1 |
| St. Mary | 55.8 | ... | ... | ... | ... | 50.7 | 5.1 |
| Terrebonne | 65.1 | ... | ... | ... | ... | 65.1 | ... |
| West Feliciana | 90.4 | ... | 4.5 | 0.9 | 31.3 | 50.2 | 3.6 |
| All parishes | 1631.5 | ... | 11.6 | 0.9 | 41.3 | 1420.5 | 157.2 |

[1] Lafayette and Vermillion included in Acadia.

[2] West Baton Rouge included in Iberville.

Table 31--Volume of timber on timberland by parish, class of timber and species group, South Delta Louisiana, 1984

| Parish | All classes | Growing stock | | Rough | | Rotten | |
|---|---|---|---|---|---|---|---|
| | | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| | Million cubic feet | | | | | | |
| Acadia[1] | 153.0 | 24.0 | 106.7 | 1.2 | 18.3 | ... | 2.8 |
| Ascension | 179.1 | 42.9 | 107.7 | 5.5 | 19.2 | ... | 3.8 |
| Assumption | 329.8 | 128.5 | 125.8 | 10.0 | 47.1 | 11.4 | 6.8 |
| Avoyelles | 286.0 | 64.7 | 165.0 | 3.4 | 35.9 | 2.5 | 14.6 |
| Iberia | 234.5 | 94.5 | 95.7 | 9.0 | 31.9 | 0.2 | 3.3 |
| Iberville[2] | 606.2 | 89.6 | 342.9 | 1.4 | 144.5 | 3.6 | 24.2 |
| Lafourche | 411.0 | 139.2 | 176.3 | 22.2 | 56.8 | 6.2 | 10.1 |
| Pointe Coupee | 303.8 | 11.8 | 236.4 | ... | 45.5 | 1.1 | 9.0 |
| St. Charles | 100.2 | 29.2 | 53.9 | 3.9 | 12.3 | 0.5 | 0.5 |
| St. James | 236.7 | 93.8 | 112.8 | 4.4 | 16.0 | 0.9 | 8.9 |
| St. John Baptist | 251.9 | 106.3 | 91.9 | 5.0 | 44.9 | 3.2 | 0.7 |
| St. Landry | 413.6 | 56.2 | 276.6 | 3.5 | 69.0 | ... | 8.4 |
| St. Martin | 603.8 | 141.8 | 304.8 | 8.5 | 127.5 | 2.2 | 19.0 |
| St. Mary | 236.9 | 76.1 | 114.4 | 5.2 | 34.7 | 0.7 | 5.8 |
| Terrebonne | 277.9 | 136.9 | 96.8 | 4.1 | 35.0 | ... | 5.1 |
| West Feliciana | 278.0 | 70.4 | 136.0 | 8.3 | 58.7 | 2.9 | 1.8 |
| All parishes | 4902.5 | 1305.9 | 2543.7 | 95.5 | 797.3 | 35.4 | 124.7 |

[1] Lafayette and Vermillion included in Acadia.

[2] West Baton Rouge included in Iberville.

Table 32--Number of live trees on timberland by detailed species and diameter class, South Delta Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| Shortleaf pine | 1627 | ... | ... | 407 | 707 | 344 | 133 | ... | 37 | ... | ... | ... | ... |
| Loblolly pine | 19033 | 9409 | 3764 | 978 | 1249 | 932 | 1172 | 919 | 339 | 159 | 96 | 17 | ... |
| Spruce pine | 43 | ... | ... | ... | ... | ... | ... | 43 | ... | ... | ... | ... | ... |
| Cypress | 105387 | 19889 | 15811 | 13935 | 13698 | 11570 | 9533 | 6951 | 5569 | 3651 | 2279 | 2312 | 190 |
| Total softwoods | 126089 | 29298 | 19575 | 15320 | 15653 | 12846 | 10837 | 7912 | 5945 | 3810 | 2375 | 2329 | 190 |
| Select white oaks | 3463 | 1484 | 495 | 679 | 406 | ... | 113 | 49 | 105 | ... | 77 | 19 | 36 |
| Select red oaks | 5389 | 2035 | 1770 | 478 | 259 | 161 | 69 | 208 | 85 | 96 | 42 | 170 | 15 |
| Other white oaks | 19995 | 10259 | 4410 | 1385 | 1023 | 664 | 549 | 544 | 461 | 206 | 162 | 277 | 54 |
| Other red oaks | 41248 | 20917 | 5663 | 2598 | 2805 | 3005 | 1624 | 933 | 927 | 626 | 432 | 1375 | 343 |
| Sweet pecan | 3639 | 337 | 1119 | 642 | 618 | 249 | 177 | 103 | 92 | 146 | 57 | 90 | 9 |
| Water hickory | 37046 | 20373 | 4828 | 5323 | 1827 | 2025 | 793 | 881 | 337 | 287 | 173 | 158 | 41 |
| Other hickories | 8279 | 6514 | ... | 750 | 315 | 72 | 236 | 39 | 152 | 122 | 20 | 50 | 7 |
| Persimmon | 13303 | 9885 | 2553 | 637 | 162 | 67 | ... | ... | ... | ... | ... | ... | ... |
| Hard maple | 1713 | 1674 | ... | ... | ... | ... | ... | 38 | ... | ... | ... | ... | ... |
| Soft maple | 316631 | 223595 | 55570 | 17404 | 9856 | 4874 | 2175 | 1398 | 830 | 378 | 202 | 296 | 51 |
| Boxelder | 39463 | 24736 | 7010 | 3148 | 1301 | 1867 | 1024 | 155 | 154 | 27 | 39 | ... | ... |
| Beech | 1894 | 1119 | 559 | ... | ... | 73 | ... | 47 | 36 | ... | 41 | 19 | ... |
| Sweetgum | 55851 | 19182 | 13765 | 5284 | 5483 | 4036 | 2877 | 2421 | 1175 | 491 | 536 | 553 | 48 |
| Blackgum | 2126 | 989 | 559 | ... | 126 | 99 | 125 | 129 | 81 | ... | 18 | ... | ... |
| Other gums/tupelos | 112815 | 16141 | 20639 | 13062 | 18272 | 15310 | 14059 | 8306 | 4191 | 1515 | 632 | 606 | 82 |
| White ash | 1314 | 1102 | ... | ... | ... | ... | ... | ... | 101 | 25 | 65 | 20 | ... |
| Other ashes | 126078 | 69570 | 22515 | 10608 | 8141 | 5300 | 3573 | 2125 | 1674 | 1063 | 466 | 929 | 113 |
| Sycamore | 4589 | 560 | 1210 | 717 | 751 | 412 | 488 | 85 | 157 | 106 | 21 | 63 | 18 |
| Cottonwood | 5434 | 1086 | 1078 | 691 | 427 | 503 | 344 | 434 | 373 | 239 | 124 | 112 | 24 |
| Basswood | 53 | ... | ... | ... | ... | ... | ... | ... | 31 | ... | 21 | ... | ... |
| Yellow-poplar | 726 | 559 | ... | ... | ... | ... | 52 | 38 | 36 | ... | 21 | 19 | ... |
| Magnolia | 130 | ... | ... | ... | 124 | ... | ... | ... | ... | ... | ... | ... | 6 |
| Willow | 74827 | 42957 | 6050 | 7914 | 5021 | 3457 | 3090 | 1642 | 1516 | 1204 | 509 | 1303 | 163 |
| Black cherry | 685 | 559 | ... | ... | ... | 73 | 52 | ... | ... | ... | ... | ... | ... |
| American elm | 37148 | 20250 | 6423 | 3947 | 1923 | 1299 | 1063 | 801 | 648 | 343 | 220 | 213 | 17 |
| Other elms | 20913 | 15870 | 3058 | 436 | 867 | 83 | 176 | 128 | 61 | 98 | 63 | 61 | 12 |
| River birch | 28 | ... | ... | ... | ... | ... | ... | ... | ... | 28 | ... | ... | ... |
| Hackberry | 89335 | 55650 | 12047 | 5202 | 4579 | 3647 | 2846 | 1923 | 1412 | 1020 | 380 | 584 | 45 |
| Other locusts | 5185 | 2125 | 574 | 687 | 568 | 453 | 215 | 242 | 136 | 95 | 39 | 51 | ... |
| Sassafras | 18 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 18 | ... | ... |
| Dogwood | 9562 | 7023 | 1524 | 742 | 273 | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 678 | 559 | ... | ... | 119 | ... | ... | ... | ... | ... | ... | ... | ... |
| Other commercial | 9467 | 8100 | 559 | 486 | 178 | ... | 72 | 39 | 33 | ... | ... | ... | ... |
| Total hardwoods | 1049025 | 585216 | 173978 | 82821 | 65422 | 47731 | 35794 | 22707 | 14804 | 8116 | 4380 | 6970 | 1087 |
| Noncommercial | 76429 | 54263 | 7486 | 8976 | 3339 | 1583 | 261 | 201 | 34 | 83 | 62 | 111 | 30 |
| All species | 1251543 | 668777 | 201039 | 107117 | 84414 | 62160 | 46892 | 30820 | 20782 | 12009 | 6816 | 9410 | 1307 |

Table 33--Number of growing stock-stock trees on timberland by detailed species and diameter class, South Delta Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | |
| Shortleaf pine | 1240 | 181 | 545 | 344 | 133 | ... | 37 | ... | ... | ... | ... |
| Loblolly pine | 4949 | 758 | 1102 | 714 | 1051 | 833 | 238 | 138 | 96 | 17 | ... |
| Spruce pine | 43 | ... | ... | ... | ... | 43 | ... | ... | ... | ... | ... |
| Cypress | 61979 | 12341 | 12665 | 8897 | 8933 | 6597 | 5245 | 3325 | 2028 | 1948 | ... |
| Total softwoods | 68210 | 13281 | 14312 | 9956 | 10116 | 7473 | 5521 | 3463 | 2124 | 1965 | ... |
| Select white oaks | 1264 | 458 | 406 | ... | 113 | 49 | 105 | ... | 77 | 19 | 36 |
| Select red oaks | 1261 | 193 | 259 | 161 | 69 | 208 | 85 | 96 | 20 | 155 | 15 |
| Other white oaks | 4007 | 1138 | 917 | 416 | 374 | 324 | 307 | 157 | 141 | 196 | 36 |
| Other red oaks | 11592 | 1631 | 2180 | 2430 | 1459 | 802 | 897 | 546 | 373 | 1055 | 219 |
| Sweet pecan | 1635 | 392 | 352 | 249 | 177 | 103 | 58 | 146 | 57 | 90 | 9 |
| Water hickory | 5899 | 1825 | 771 | 1271 | 563 | 716 | 271 | 210 | 98 | 133 | 41 |
| Other hickories | 957 | 174 | 315 | 72 | 104 | 39 | 123 | 99 | 20 | 9 | ... |
| Persimmon | 229 | ... | 162 | 67 | ... | ... | ... | ... | ... | ... | ... |
| Hard maple | 38 | ... | ... | ... | ... | 38 | ... | ... | ... | ... | ... |
| Soft maple | 16237 | 6840 | 5444 | 1669 | 959 | 544 | 428 | 155 | 78 | 109 | 10 |
| Boxelder | 3951 | 1751 | 699 | 984 | 416 | 42 | 60 | ... | ... | ... | ... |
| Beech | 87 | ... | ... | ... | ... | 47 | ... | ... | 20 | 19 | ... |
| Sweetgum | 15638 | 2801 | 3732 | 2712 | 2251 | 1902 | 978 | 414 | 472 | 365 | 10 |
| Blackgum | 324 | ... | ... | ... | 125 | 129 | 52 | ... | 18 | ... | ... |
| Other gums/tupelos | 54242 | 6824 | 13577 | 12563 | 9823 | 6440 | 3062 | 1119 | 526 | 308 | ... |
| White ash | 165 | ... | ... | ... | ... | ... | 101 | ... | 43 | 20 | ... |
| Other ashes | 19808 | 5274 | 4393 | 3550 | 2441 | 1378 | 1177 | 688 | 327 | 558 | 23 |
| Sycamore | 2550 | 717 | 632 | 412 | 369 | 85 | 157 | 106 | 21 | 42 | 9 |
| Cottonwood | 3126 | 691 | 427 | 503 | 344 | 390 | 342 | 214 | 102 | 97 | 16 |
| Yellow-poplar | 115 | ... | ... | ... | ... | 38 | 36 | ... | 21 | 19 | ... |
| Magnolia | 124 | ... | 124 | ... | ... | ... | ... | ... | ... | ... | ... |
| Willow | 15670 | 4701 | 3224 | 2302 | 1845 | 1001 | 956 | 624 | 322 | 657 | 38 |
| Black cherry | 126 | ... | ... | 73 | 52 | ... | ... | ... | ... | ... | ... |
| American elm | 6397 | 1722 | 1573 | 673 | 815 | 616 | 457 | 233 | 181 | 126 | ... |
| Other elms | 1558 | 436 | 596 | 83 | 176 | 128 | ... | 52 | 41 | 47 | ... |
| River birch | 28 | ... | ... | ... | ... | ... | ... | 28 | ... | ... | ... |
| Hackberry | 13574 | 2858 | 3377 | 2439 | 1762 | 1156 | 855 | 728 | 180 | 219 | ... |
| Other locusts | 1221 | 346 | 119 | 342 | 57 | 203 | 30 | 45 | 39 | 39 | ... |
| Sassafras | 18 | ... | ... | ... | ... | ... | ... | ... | 18 | ... | ... |
| Other commercial | 283 | ... | 178 | ... | 72 | ... | 33 | ... | ... | ... | ... |
| Total hardwoods | 182122 | 40771 | 43457 | 32971 | 24369 | 16377 | 10574 | 5659 | 3197 | 4282 | 464 |
| All species | 250332 | 54052 | 57769 | 42927 | 34485 | 23850 | 16095 | 9123 | 5321 | 6247 | 464 |

Table 34-Volume of growing stock on timberland by species and diameter class, South Delta Louisiana, 1984

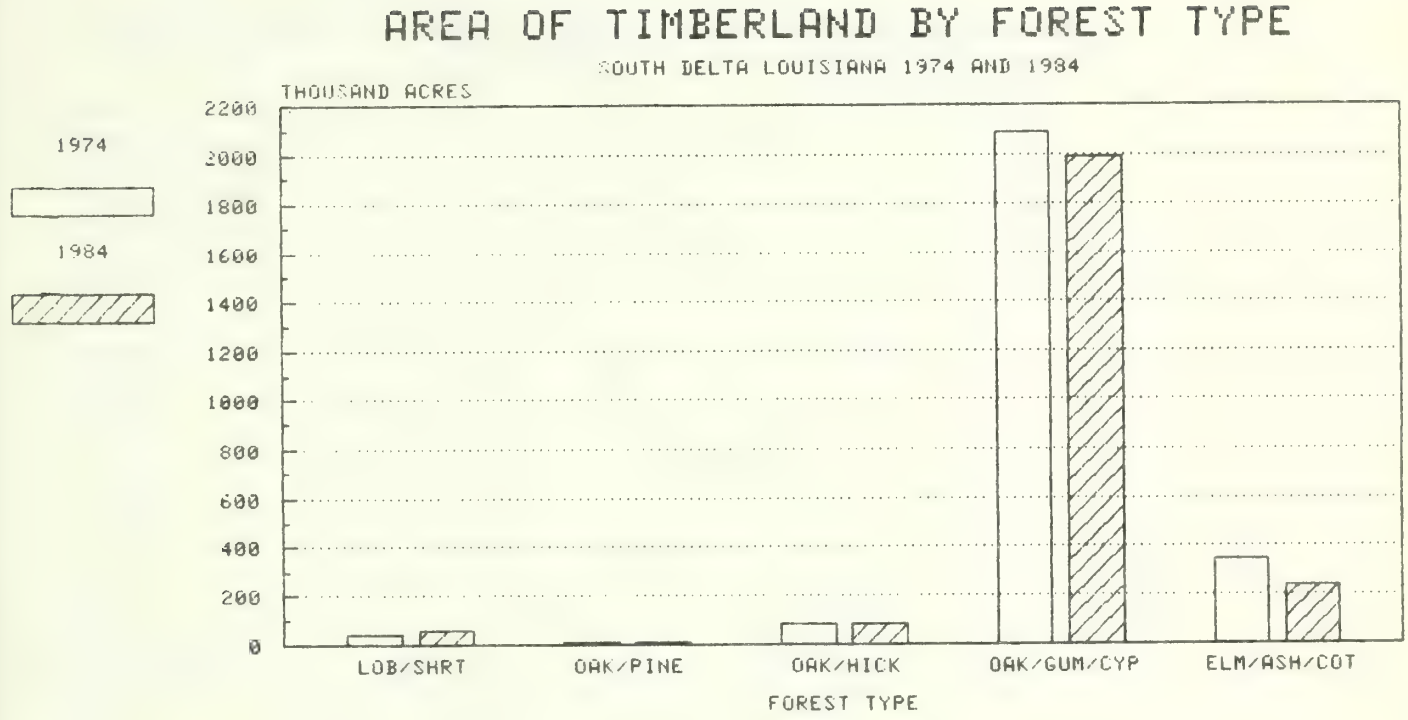
| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | | | |
| Shortleaf pine | 13.9 | 1.0 | 4.4 | 4.5 | 2.4 | ... | 1.5 | ... | ... | ... | ... |
| Loblolly pine | 92.8 | 1.8 | 5.9 | 9.3 | 23.3 | 26.0 | 10.6 | 7.9 | 6.4 | 1.6 | ... |
| Spruce pine | 1.1 | ... | ... | ... | ... | 1.1 | ... | ... | ... | ... | ... |
| Cypress | 1198.1 | 19.7 | 66.8 | 103.6 | 167.6 | 183.1 | 199.1 | 162.3 | 124.2 | 171.7 | ... |
| Total softwoods | 1305.9 | 22.5 | 77.1 | 117.4 | 193.4 | 210.2 | 211.2 | 170.2 | 130.6 | 173.3 | ... |
| Select white oaks | 15.6 | 0.8 | 1.6 | ... | 1.0 | 0.7 | 2.6 | ... | 3.7 | 1.3 | 3.8 |
| Select red oaks | 31.4 | 0.6 | 1.4 | 1.4 | 0.9 | 4.7 | 2.7 | 4.4 | 0.7 | 12.3 | 2.3 |
| Other white oaks | 49.5 | 2.1 | 4.3 | 3.0 | 4.9 | 6.0 | 6.9 | 4.8 | 4.5 | 9.6 | 3.4 |
| Other red oaks | 274.7 | 4.1 | 10.3 | 23.8 | 23.3 | 17.0 | 29.1 | 22.7 | 17.8 | 92.1 | 34.4 |
| Sweet pecan | 36.9 | 1.5 | 2.5 | 2.9 | 3.2 | 2.9 | 2.8 | 8.1 | 3.4 | 8.8 | 0.7 |
| Water hickory | 76.4 | 3.9 | 3.2 | 10.2 | 8.2 | 13.3 | 6.4 | 8.5 | 5.2 | 9.5 | 7.9 |
| Other hickories | 16.3 | 0.8 | 1.1 | 1.0 | 2.6 | 1.0 | 3.0 | 4.4 | 1.3 | 1.2 | ... |
| Persimmon | 1.1 | ... | 0.4 | 0.7 | ... | ... | ... | ... | ... | ... | ... |
| Hard maple | 1.1 | ... | ... | ... | ... | 1.1 | ... | ... | ... | ... | ... |
| Soft maple | 117.2 | 14.2 | 29.0 | 17.3 | 15.0 | 12.9 | 10.6 | 7.0 | 3.3 | 6.8 | 1.2 |
| Boxelder | 22.9 | 3.6 | 3.5 | 7.2 | 6.0 | 0.9 | 1.7 | ... | ... | ... | ... |
| Beech | 1.8 | ... | ... | ... | ... | 0.5 | ... | ... | 0.7 | 0.6 | ... |
| Sweetgum | 282.4 | 6.0 | 22.7 | 30.2 | 43.9 | 50.5 | 39.1 | 23.2 | 31.2 | 32.9 | 2.7 |
| Blackgum | 7.3 | ... | ... | ... | 1.1 | 3.4 | 1.9 | ... | 0.9 | ... | ... |
| Other gums/tupelos | 684.5 | 12.5 | 63.7 | 123.9 | 159.0 | 139.8 | 93.2 | 45.4 | 25.4 | 21.6 | ... |
| White ash | 5.3 | ... | ... | ... | ... | ... | 2.0 | ... | 1.8 | 1.5 | ... |
| Other ashes | 262.6 | 13.8 | 22.0 | 35.5 | 39.4 | 32.8 | 31.4 | 28.8 | 15.7 | 40.1 | 3.3 |
| Sycamore | 38.4 | 2.0 | 2.8 | 5.7 | 7.0 | 2.8 | 6.7 | 5.4 | 1.4 | 3.7 | 0.9 |
| Cottonwood | 77.2 | 1.7 | 2.0 | 6.8 | 8.4 | 13.5 | 12.8 | 10.6 | 7.9 | 10.3 | 3.2 |
| Yellow-poplar | 4.7 | ... | ... | ... | ... | 1.4 | 0.9 | ... | 1.4 | 0.9 | ... |
| Magnolia | 0.4 | ... | 0.4 | ... | ... | ... | ... | ... | ... | ... | ... |
| Willow | 244.1 | 8.2 | 17.5 | 23.3 | 32.5 | 27.1 | 32.7 | 26.5 | 17.1 | 55.2 | 4.2 |
| Black cherry | 1.4 | ... | ... | 0.7 | 0.7 | ... | ... | ... | ... | ... | ... |
| American elm | 78.6 | 3.9 | 7.3 | 5.8 | 11.3 | 11.6 | 12.5 | 7.6 | 7.8 | 10.8 | ... |
| Other elms | 15.8 | 0.9 | 3.2 | 0.8 | 2.2 | 3.2 | ... | 1.5 | 1.7 | 2.4 | ... |
| River birch | 0.9 | ... | ... | ... | ... | ... | ... | 0.9 | ... | ... | ... |
| Hackberry | 178.1 | 5.3 | 17.4 | 23.3 | 27.2 | 26.1 | 26.1 | 26.4 | 10.2 | 16.3 | ... |
| Other locusts | 13.9 | 1.0 | 0.3 | 2.5 | 0.9 | 3.6 | 0.6 | 1.3 | 1.2 | 2.5 | ... |
| Sassafras | 1.8 | ... | ... | ... | ... | ... | ... | ... | 1.8 | ... | ... |
| Other commercial | 1.7 | ... | 0.5 | ... | 0.4 | ... | 0.8 | ... | ... | ... | ... |
| Total hardwoods | 2543.7 | 87.0 | 217.1 | 325.7 | 399.3 | 376.6 | 326.4 | 237.3 | 165.9 | 340.4 | 67.9 |
| All species | 3849.6 | 109.5 | 294.2 | 443.2 | 592.7 | 586.8 | 537.6 | 407.5 | 296.5 | 513.7 | 67.9 |

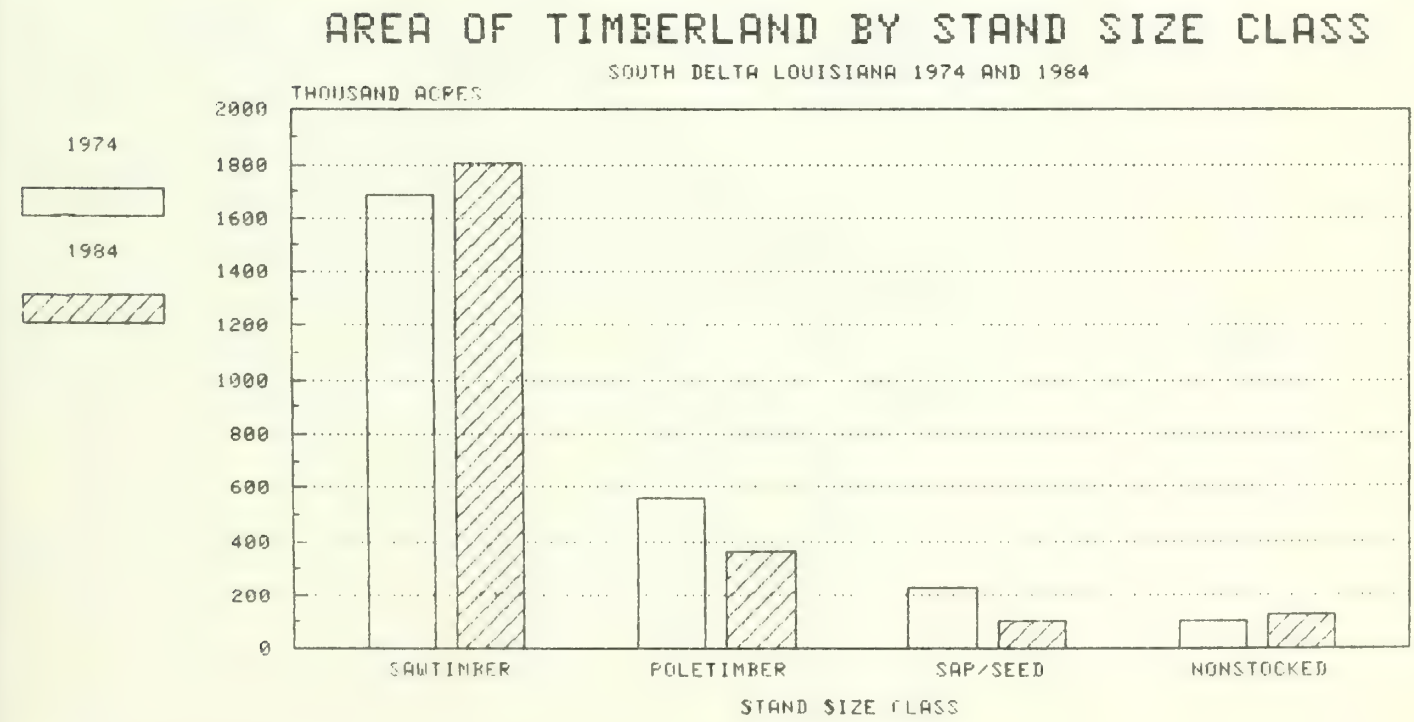
Table 35--Volume of growing stock in the saw-log portion of sawtimber trees on timberland by detailed species and diameter class, South Delta Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | |
| Shortleaf pine | 7.4 | 4.0 | 2.1 | ... | 1.4 | ... | ... | ... | ... |
| Loblolly pine | 77.1 | 7.8 | 20.5 | 23.6 | 9.9 | 7.6 | 6.2 | 1.6 | ... |
| Spruce pine | 1.0 | ... | ... | 1.0 | ... | ... | ... | ... | ... |
| Cypress | 913.6 | 27.6 | 133.2 | 152.1 | 172.4 | 146.5 | 115.4 | 166.5 | ... |
| Total softwoods | 999.2 | 39.3 | 155.9 | 176.7 | 183.6 | 154.1 | 121.6 | 168.1 | ... |
| Select white oaks | 11.4 | ... | 0.9 | 0.6 | 2.4 | ... | 3.2 | 1.1 | 3.3 |
| Select red oaks | 24.6 | ... | 0.8 | 4.1 | 2.4 | 3.8 | 0.6 | 10.9 | 2.0 |
| Other white oaks | 35.5 | ... | 4.5 | 5.3 | 6.1 | 4.2 | 4.1 | 8.4 | 2.9 |
| Other red oaks | 206.2 | ... | 20.4 | 14.8 | 25.4 | 19.8 | 15.5 | 80.4 | 29.9 |
| Sweet pecan | 25.9 | ... | 2.4 | 2.3 | 2.4 | 7.0 | 3.0 | 8.2 | 0.6 |
| Water hickory | 51.0 | ... | 6.5 | 10.7 | 5.4 | 7.3 | 4.6 | 8.8 | 7.8 |
| Other hickories | 11.4 | ... | 2.0 | 0.9 | 2.5 | 3.7 | 1.2 | 1.2 | ... |
| Hard maple | 0.9 | ... | ... | 0.9 | ... | ... | ... | ... | ... |
| Soft maple | 47.4 | ... | 11.5 | 10.6 | 8.8 | 5.9 | 3.0 | 6.4 | 1.2 |
| Boxelder | 6.8 | ... | 4.6 | 0.7 | 1.5 | ... | ... | ... | ... |
| Beech | 1.6 | ... | ... | 0.4 | ... | ... | 0.7 | 0.5 | ... |
| Sweetgum | 188.5 | ... | 34.1 | 41.0 | 32.8 | 20.0 | 27.7 | 30.3 | 2.6 |
| Blackgum | 5.9 | ... | 0.9 | 2.7 | 1.6 | ... | 0.7 | ... | ... |
| Other gums/tupelos | 416.9 | ... | 128.1 | 118.8 | 82.4 | 42.3 | 24.1 | 21.3 | ... |
| White ash | 4.7 | ... | ... | ... | 1.7 | ... | 1.6 | 1.4 | ... |
| Other ashes | 160.8 | ... | 30.6 | 26.3 | 26.0 | 24.8 | 13.5 | 36.5 | 3.2 |
| Sycamore | 23.2 | ... | 5.3 | 2.2 | 5.4 | 4.8 | 1.3 | 3.4 | 0.9 |
| Cottonwood | 56.0 | ... | 6.2 | 10.7 | 10.5 | 9.0 | 6.9 | 9.5 | 3.0 |
| Yellow-poplar | 4.0 | ... | ... | 1.1 | 0.7 | ... | 1.2 | 0.9 | ... |
| Willow | 164.4 | ... | 24.2 | 21.4 | 27.0 | 22.7 | 14.9 | 50.3 | 4.0 |
| Black cherry | 0.6 | ... | 0.6 | ... | ... | ... | ... | ... | ... |
| American elm | 51.9 | ... | 8.6 | 9.4 | 10.5 | 6.5 | 6.9 | 10.0 | ... |
| Other elms | 9.3 | ... | 1.6 | 2.6 | ... | 1.3 | 1.5 | 2.3 | ... |
| River birch | 0.7 | ... | ... | ... | ... | 0.7 | ... | ... | ... |
| Hackberry | 110.7 | ... | 21.1 | 21.1 | 21.6 | 23.0 | 9.0 | 15.0 | ... |
| Other locusts | 8.5 | ... | 0.7 | 2.8 | 0.5 | 1.1 | 1.0 | 2.4 | ... |
| Sassafras | 1.6 | ... | ... | ... | ... | ... | 1.6 | ... | ... |
| Other commercial | 1.1 | ... | 0.4 | ... | 0.7 | ... | ... | ... | ... |
| Total hardwoods | 1631.5 | ... | 315.8 | 311.4 | 278.4 | 207.9 | 147.5 | 309.0 | 61.4 |
| All species | 2630.6 | 39.3 | 471.7 | 488.0 | 462.0 | 362.0 | 269.1 | 477.1 | 61.4 |

Table 36--Volume of timber on timberland by species and class of timber, South Delta Louisiana, 1984

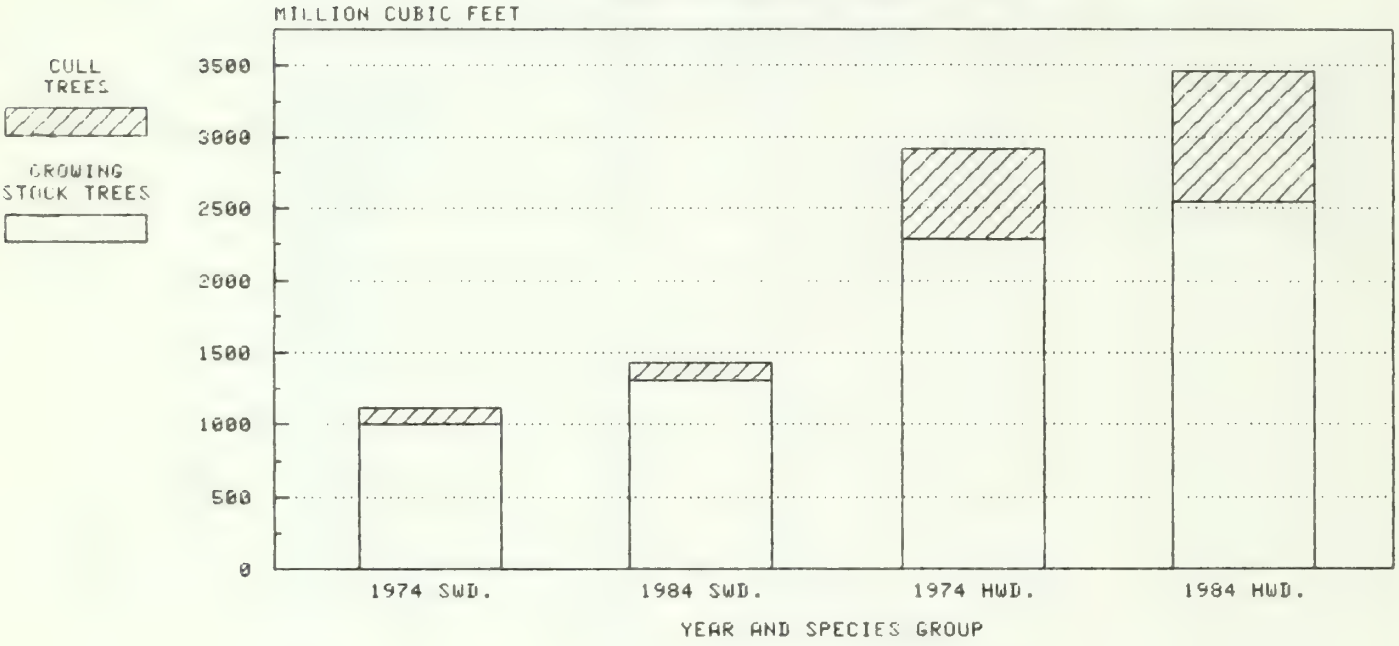
| Species | All live | Growing stock | Rough | Rotten |
|---|---|---|---|---|
| | Million cubic feet | | | |
| Shortleaf pine | 14.8 | 13.9 | 0.9 | ... |
| Loblolly pine | 106.0 | 92.8 | 13.2 | ... |
| Spruce pine | 1.1 | 1.1 | ... | ... |
| Cypress | 1315.0 | 1198.1 | 81.5 | 35.4 |
| Total softwoods | 1436.9 | 1305.9 | 95.5 | 35.4 |
| Select white oaks | 16.3 | 15.6 | 0.7 | ... |
| Select red oaks | 33.8 | 31.4 | 2.4 | ... |
| Other white oaks | 62.1 | 49.5 | 10.8 | 1.8 |
| Other red oaks | 325.2 | 274.7 | 39.5 | 10.9 |
| Sweet pecan | 38.4 | 36.9 | 1.6 | ... |
| Water hickory | 100.4 | 76.4 | 21.1 | 3.0 |
| Other hickories | 22.5 | 16.3 | 4.5 | 1.7 |
| Persimmon | 2.0 | 1.1 | 1.0 | ... |
| Hard maple | 1.1 | 1.1 | ... | ... |
| Soft maple | 219.3 | 117.2 | 80.9 | 21.2 |
| Boxelder | 43.0 | 22.9 | 19.1 | 0.9 |
| Beech | 3.3 | 1.8 | 1.5 | ... |
| Sweetgum | 359.4 | 282.4 | 71.7 | 5.2 |
| Blackgum | 9.5 | 7.3 | 1.5 | 0.8 |
| Other gums/tupelos | 878.6 | 684.5 | 174.3 | 19.9 |
| White ash | 6.7 | 5.3 | 1.4 | ... |
| Other ashes | 370.8 | 262.6 | 78.6 | 29.6 |
| Sycamore | 42.3 | 38.4 | 2.8 | 1.1 |
| Cottonwood | 83.8 | 77.2 | 5.7 | 1.0 |
| Basswood | 0.4 | ... | ... | 0.4 |
| Yellow-poplar | 4.8 | 4.7 | 0.1 | ... |
| Magnolia | 0.4 | 0.4 | ... | ... |
| Willow | 382.4 | 244.1 | 121.7 | 16.7 |
| Black cherry | 1.4 | 1.4 | ... | ... |
| American elm | 103.1 | 78.6 | 23.3 | 1.2 |
| Other elms | 19.2 | 15.8 | 3.3 | 0.1 |
| River birch | 0.9 | 0.9 | ... | ... |
| Hackberry | 263.9 | 178.1 | 77.7 | 8.1 |
| Other locusts | 19.4 | 13.9 | 4.6 | 0.9 |
| Sassafras | 1.8 | 1.8 | ... | ... |
| Dogwood | 1.6 | ... | 1.6 | ... |
| Holly | 0.4 | ... | 0.4 | ... |
| Other commercial | 2.2 | 1.7 | 0.4 | 0.1 |
| Total hardwoods | 3420.5 | 2543.7 | 752.1 | 124.7 |
| Noncommercial | 45.2 | ... | 45.2 | ... |
| All species | 4902.5 | 3849.6 | 892.8 | 160.1 |


AREA OF TIMBERLAND BY FOREST TYPE
SOUTH DELTA LOUISIANA 1974 AND 1984
THOUSAND ACRES
1974
1984
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
LOB/SHRT
OAK/PINE
OAK/HICK
OAK/GUM/CYP
ELM/ASH/COT
FOREST TYPE


AREA OF TIMBERLAND BY STAND SIZE CLASS
SOUTH DELTA LOUISIANA 1974 AND 1984
THOUSAND ACRES
1974
1984
2000
1800
1600
1400
1200
1000
800
600
400
200
0
SAWTIMBER
POLETIMBER
SAP/SEED
NONSTOCKED
STAND SIZE CLASS

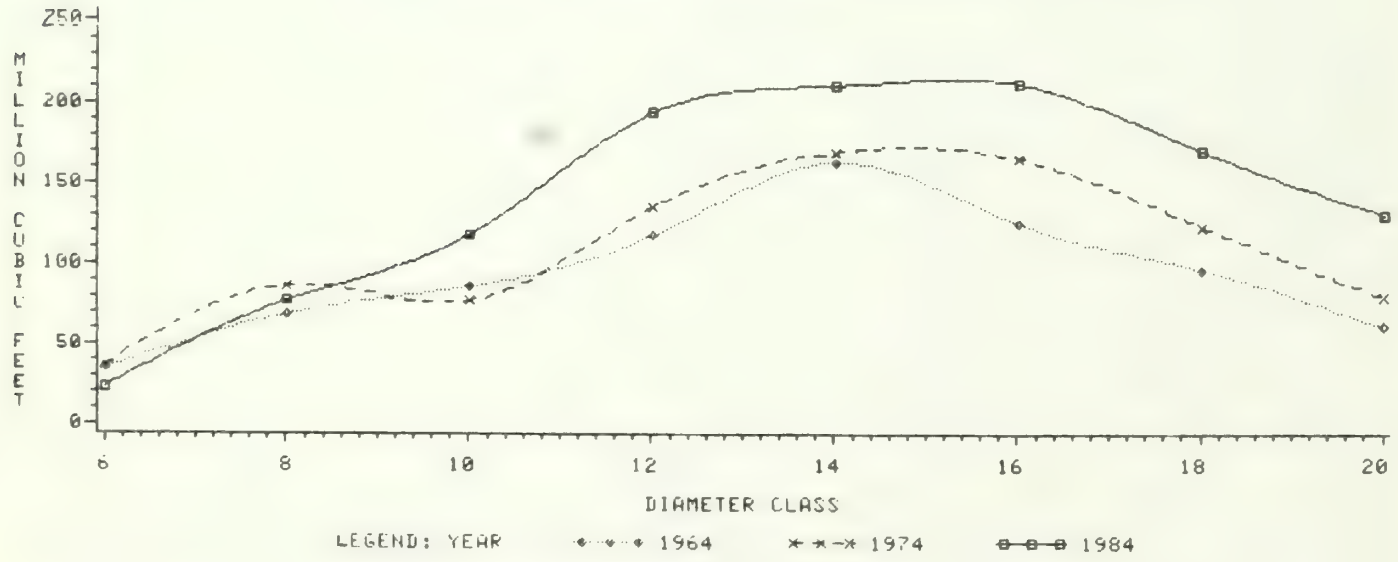
## TIMBER VOLUME BY TREE CLASS AND SPECIES

SOUTH DELTA LOUISIANA 1974 AND 1984



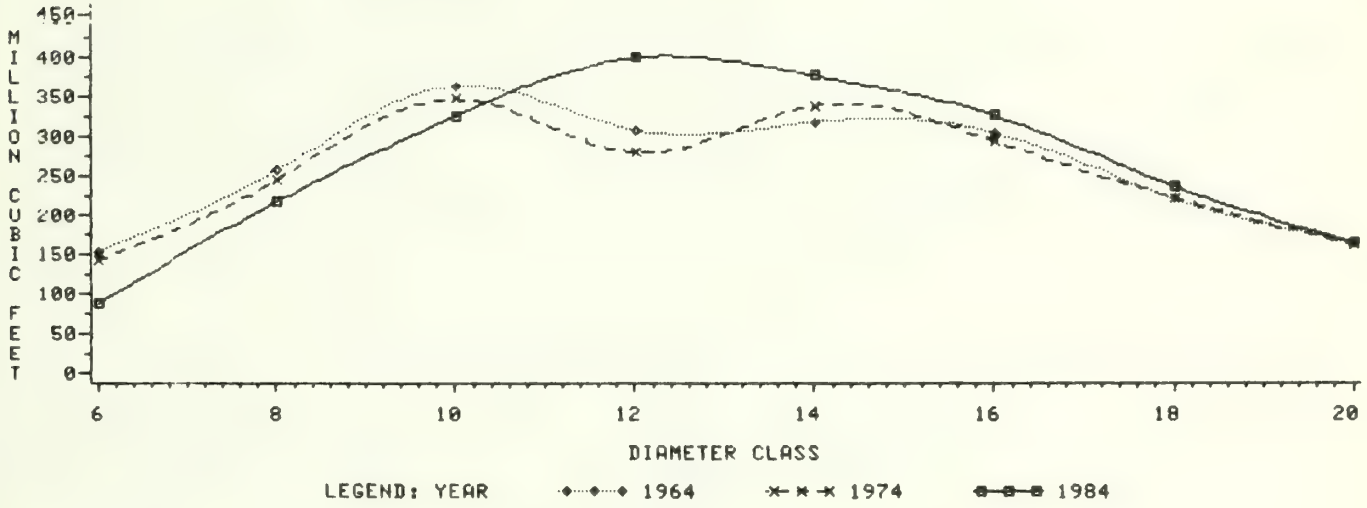

## SOFTWOOD GROWING STOCK VOLUME BY DBH CLASS

SOUTH DELTA LOUISIANA 1964, 1974, AND 1984



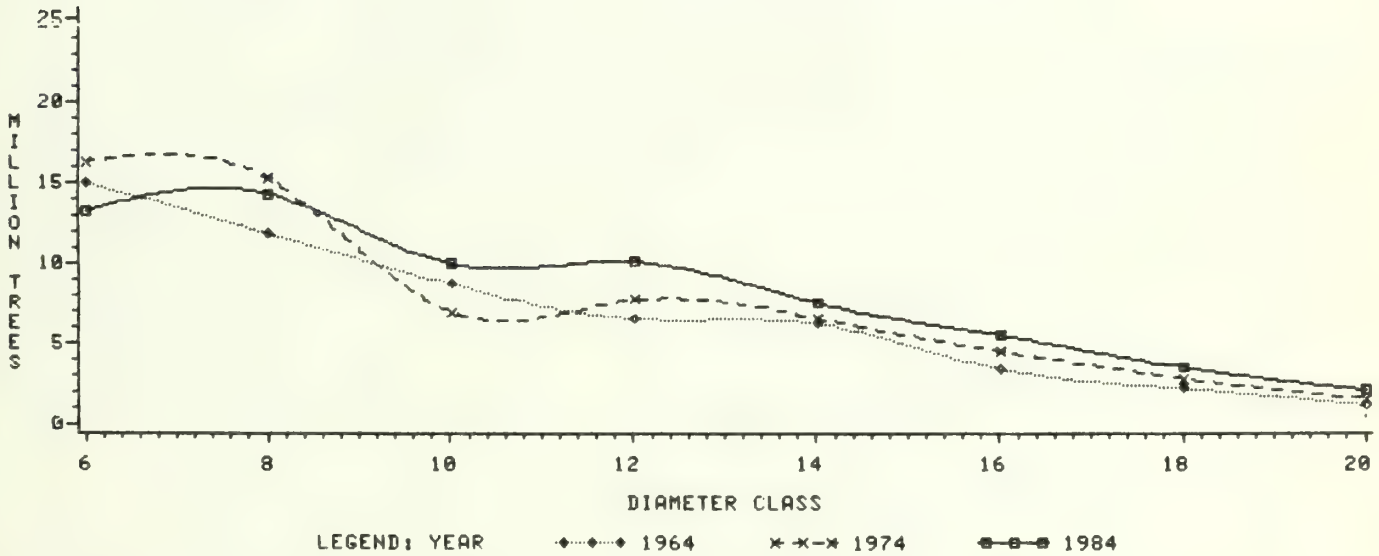
## HARDWOOD GROWING STOCK VOLUME BY DBH CLASS

SOUTH DELTA LOUISIANA 1964, 1974, AND 1984



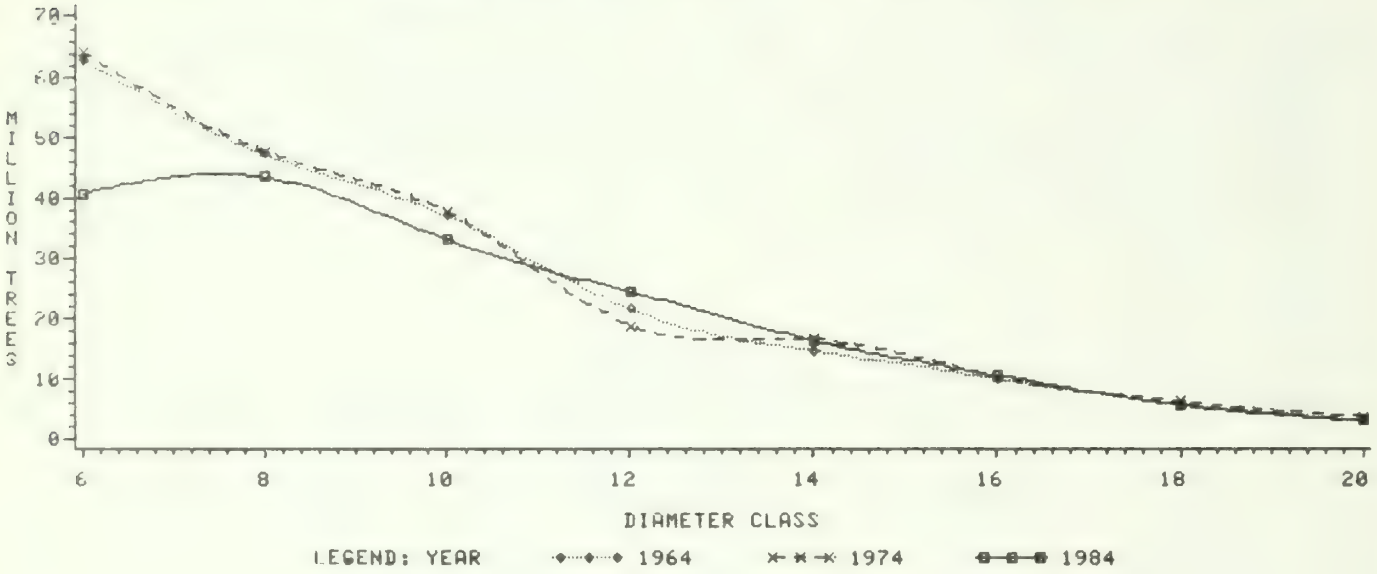

## NUMBER OF SOFTWOOD GROWING STOCK TREES BY DBH CLASS

SOUTH DELTA LOUISIANA 1964, 1974, AND 1984



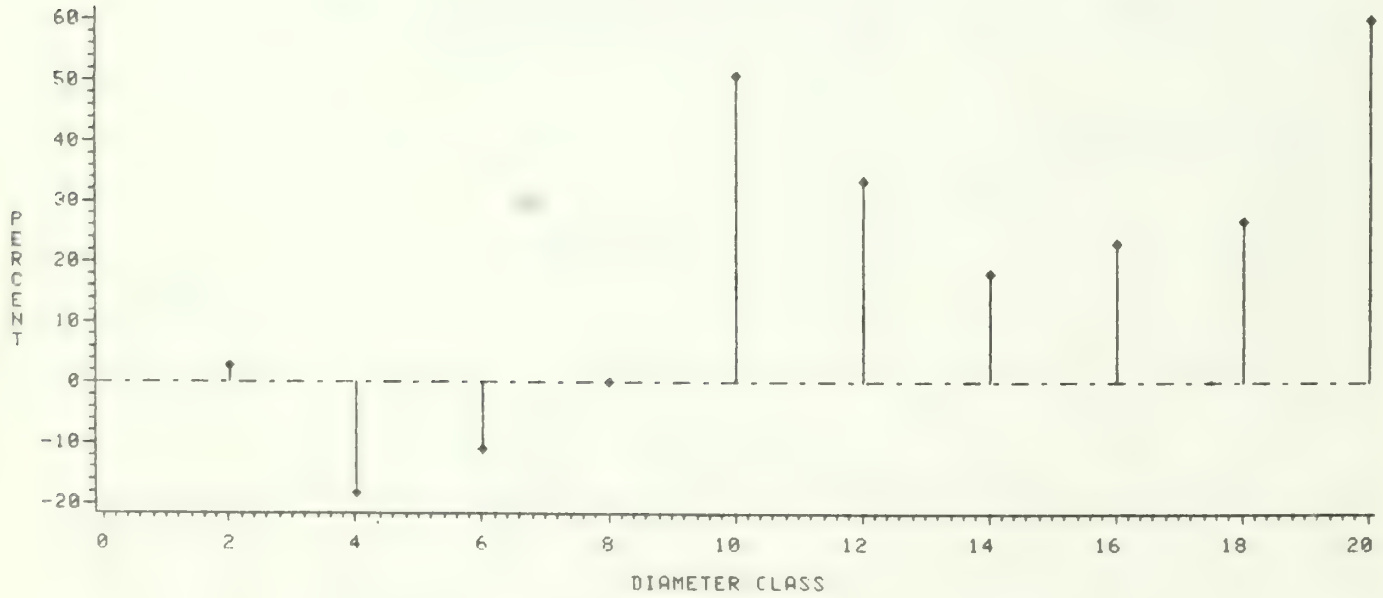
## NUMBER OF HARDWOOD GROWING STOCK TREES BY DBH CLASS

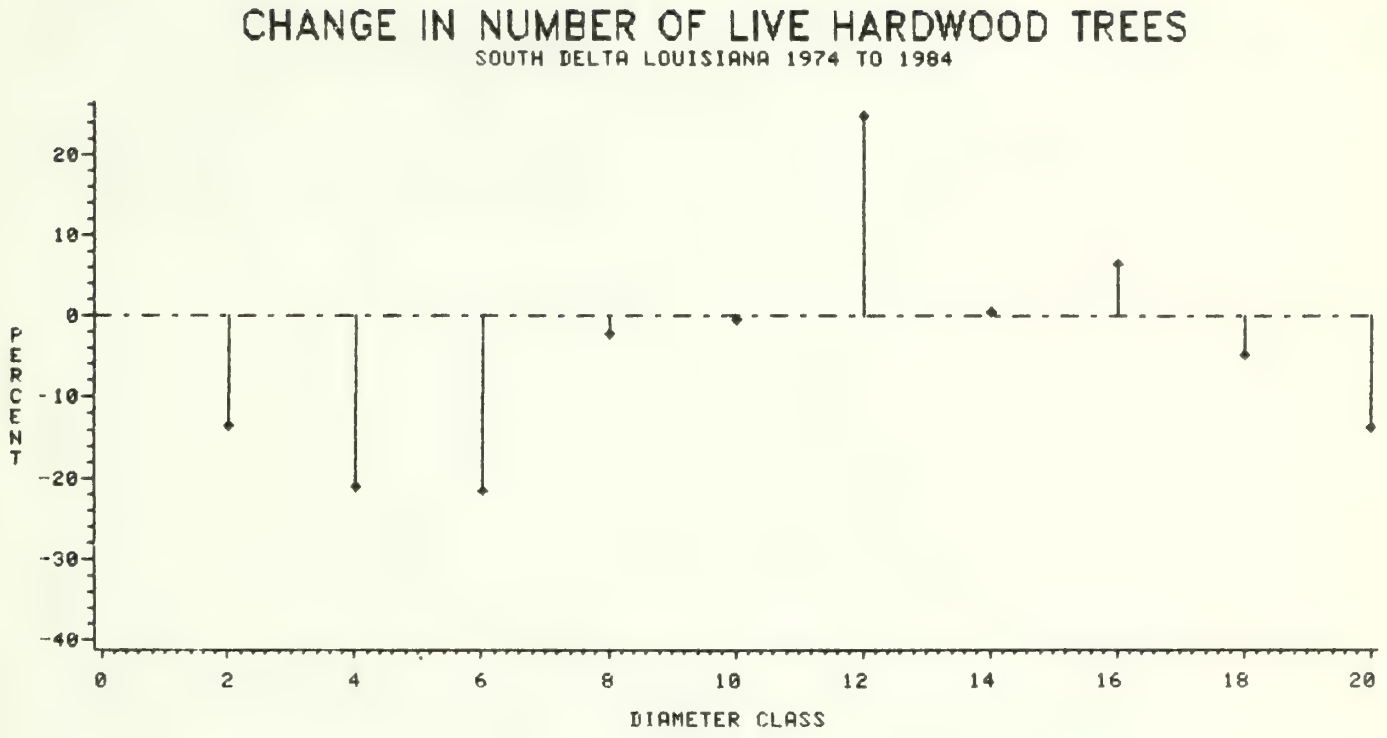
SOUTH DELTA LOUISIANA 1964, 1974, AND 1984

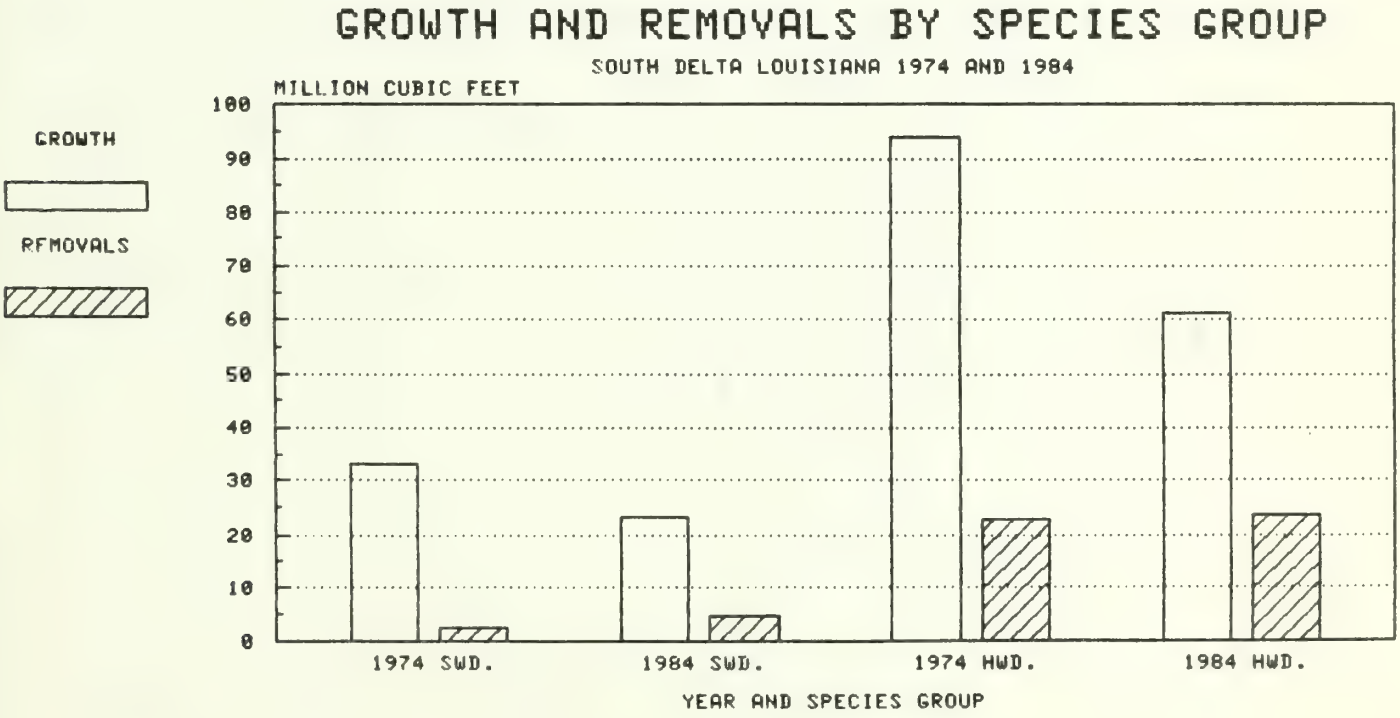



## CHANGE IN NUMBER OF LIVE SOFTWOOD TREES

SOUTH DELTA LOUISIANA 1974 TO 1984




CHANGE IN NUMBER OF LIVE HARDWOOD TREES
SOUTH DELTA LOUISIANA 1974 TO 1984
PERCENT
20
10
0
-10
-20
-30
-40
0
2
4
6
8
10
12
14
16
18
20
DIAMETER CLASS


GROWTH AND REMOVALS BY SPECIES GROUP
SOUTH DELTA LOUISIANA 1974 AND 1984
MILLION CUBIC FEET
GROWTH
REMOVALS
100
90
80
70
60
50
40
30
20
10
0
1974 SWD.
1984 SWD.
1974 HWD.
1984 HWD.
YEAR AND SPECIES GROUP

Rosson, Jr., James F. and Daniel F. Bertelson. Forest Statistics for South Delta Louisiana parishes. Resourc. Bull. SO-106 . New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1986. 31 p.

Tabulates forest resource information from a new inventory of the South Delta Unit of Louisiana.

Additional Keywords: Area, volume, forest type, stand-size, ownership.

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# Midsouth Forest Area Trends

Richard A. Birdsey and William H. McWilliams

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# Midsouth Forest Area Trends

Richard A. Birdsey and William H. McWilliams

## INTRODUCTION

The Forest Inventory and Analysis Unit of the Southern Forest Experiment Station (Forest Survey) conducts periodic inventories at approximately 10-year intervals of the forest resources of the Midsouth States (fig. 1). This report contains a summary of forest acreage estimates made between 1950 and 1985. The statistics are based on published Forest Survey reports and survey archives. Because each state is inventoried successively in a continuous cycle, area estimates were adjusted to common years through interpolation between actual survey dates, and extrapolation to earlier or later years. Minor adjustments were made for definitional or procedural changes that have occurred in the survey process. Area estimates by ownership classes were adjusted to conform with enumerated data on public landholdings in each state. Forest Service planting records and long-range ownership trends were used to provide cross-tabulations by owner and forest classes for some of the earlier surveys.

Area estimates for 1985 were based on past trends, planting records, and statistical reviews by individual State study teams. Preliminary estimates from ongoing surveys and various midcycle survey updates were also used. This compilation was part of a review of the Southern timber supply situation.

No estimates of statistical reliability have been made due to the extensive use of interpolation and non-statistical data sources. The reader may refer to a companion Resource Bulletin to obtain an estimate of data reliability for each state and for the Midsouth as computed from recent survey data (McWilliams and Birdsey 1985).

## FOREST AREA TRENDS

One of the most significant trends in the Midsouth has been the steady increase in the acreage of planted pine (fig. 2). Between 1955 and 1962, the Soil Bank years, many acres of idle farmland held by nonindustrial private owners were planted to pine (fig. 3). Since 1965, the forest industry has been increasing the harvest of natural pine and oak-pine, and replacing these stands with planted pine. Forest industry now owns more pine plantation acreage than any other forest class (fig. 4), and owns 64 percent of all planted pine in the Midsouth (fig. 5).

Currently 9 percent of all Midsouth timberland is planted pine, up from 6 percent just 8 years ago. The estimates of pine plantation area do not include stands that were planted but are classified oak-pine or hardwood because hardwoods comprise the majority of stocking (table I). Most of this acreage represents partially successful plantations and plantations with intensive hardwood competition. The situation is very common in young stands where planted pines have not yet attained dominance over natural hardwood regeneration, or where hardwood control measures have not yet been applied.

Natural pine accounts for 20 percent of all Midsouth timberland, down from 28 percent in 1952. Nonindustrial private owners, holding 58 percent of the total, are the principal landholders of this forest class (fig. 6).

Another significant trend in the Midsouth has been the decline in bottomland hardwood acreage. Landclearing in the Mississippi River delta and other bottomland areas has claimed 4 million acres since 1962. Most of the clearing has occurred on land held by nonindustrial

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Richard A. Birdsey and William H. McWilliams are Research Foresters, Forestry Sciences Laboratory, Southern Forest Experiment Station, U.S. Forest Service, Starkville, Mississippi, 39759.

private owners who still control the majority of the bottomland forest acreage (fig. 7).

Nonindustrial private owners hold 78 percent of all upland hardwood acreage, and this share continues to climb (figs. 8, 9). The increase coincides with a decline in natural pine and oak-pine, which is caused by selective harvests of pine timber and clearcutting without adequate pine regeneration. Additions to upland hardwood acreage also occur when pasture or cropland is taken out of production. One-half of all agricultural land that reverts to forest is dominated by hardwoods (fig. 10).

The long-term trends indicated by these data show that natural pine is declining at the fastest rate of any forest class in the Midsouth, roughly 300 thousand acres annually since 1952 (fig. 11). This overall downward trend occurs despite a slight increase between 1952 and 1962. The decline since 1970 has averaged 490 thousand acres per year. If this rate were to continue unabated, the Midsouth would lose all of its natural pine by the year 2025.

It is more likely, however, that an equilibrium will be reached before 2025. Land clearing and type conversion rates respond to economic and social pressures which vary over time. For example, the rate of bottomland forest clearing was much higher between 1962 and 1970 than between 1970 and the present. Furthermore, these statistics represent net changes, while in fact there is a constant shifting among forest types of a magnitude much greater than the net shift (Birdsey and others 1981). A forthcoming Forest Service analysis of the Southern timber supply situation will present the current "best estimates" of future timberland trends.

## DEFINITION OF TERMS

*Timberland*.--Land at least 16.7 percent stocked by forest trees of any size or formerly having such tree cover, and capable of producing crops of industrial wood. Land that is currently developed for nonforest use or withdrawn from timber utilization through statute or administrative regulation is exluded.

### Forest Class

A classification of Forest Survey plots according to forest type (based on the plurality of all live trees tallied) and stand origin.

*Pine plantations*.--Forests in which pines comprise the plurality of stocking and that originated from either planting or direct seeding.

*Natural pine*.--Forests in which pines comprise the plurality of stocking with no evidence of artificial regeneration (includes stands established by seed trees).

*Mixed pine-hardwoods*.--Forests in which hardwoods comprise the plurality of stocking, but in which pines comprise 25 to 50 percent of the stocking.

*Upland hardwoods*.--Forests in which upland hardwood species, singly or in combination, comprise the plurality of stocking, except where pines comprise 25 to 50 percent of the stocking, in which case the plot would be classified as mixed pine-hardwoods.

*Bottomland hardwoods*.--Includes forest in which bottomland hardwood species, singly or in combination, comprise a plurality of stocking except where pines comprise 25 to 50 percent, in which case the plot would be classified mixed pine-hardwoods.

### Ownership Classes

*National forest*.--Federal lands which have been legally designated as National forests or purchase units, and other lands under the administration of the Forest Service.

*Other public*.--Land owned by federal (excluding National forest land), state, county, or municipal governments.

*Forest industry*.--Land owned or leased by companies or individuals operating wood-using plants.

*Other private*.--Privately owned land excluding land owned by forest industry.

## LITERATURE CITED

Birdsey, R. A.; Van Hees, W. W. S.; Beltz, R. C. Pine regeneration in Southwest Arkansas. Res. Pap. SO-165. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1981. 10 p.

McWilliams, W. H.; Birdsey, R. A. Midsouth timber statistics. Resour. Bull. SO-108. Starkville, MS: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1986.

Table I.--*Area of plantations with a forest class of mixed pine-hardwoods or hardwoods by state and forest type, 1985*

| State | Forest class | | Total |
|---|---|---|---|
| | Mixed pine-hardwoods | Hardwoods [1/] | |
| | - - - - - - - - - - thousand acres - - - - - - - - - - | | |
| Alabama | 447 | 218 | 665 |
| Arkansas | 307 | 194 | 501 |
| Louisiana | 237 | 280 | 517 |
| Mississippi | 381 | 286 | 667 |
| Oklahoma | 176 | 131 | 307 |
| Tennessee | 52 | 78 | 130 |
| Texas | 142 | 139 | 281 |
| Midsouth | 1,742 | 1,326 | 3,068 |

[1/] Includes upland hardwoods and bottomland hardwoods.

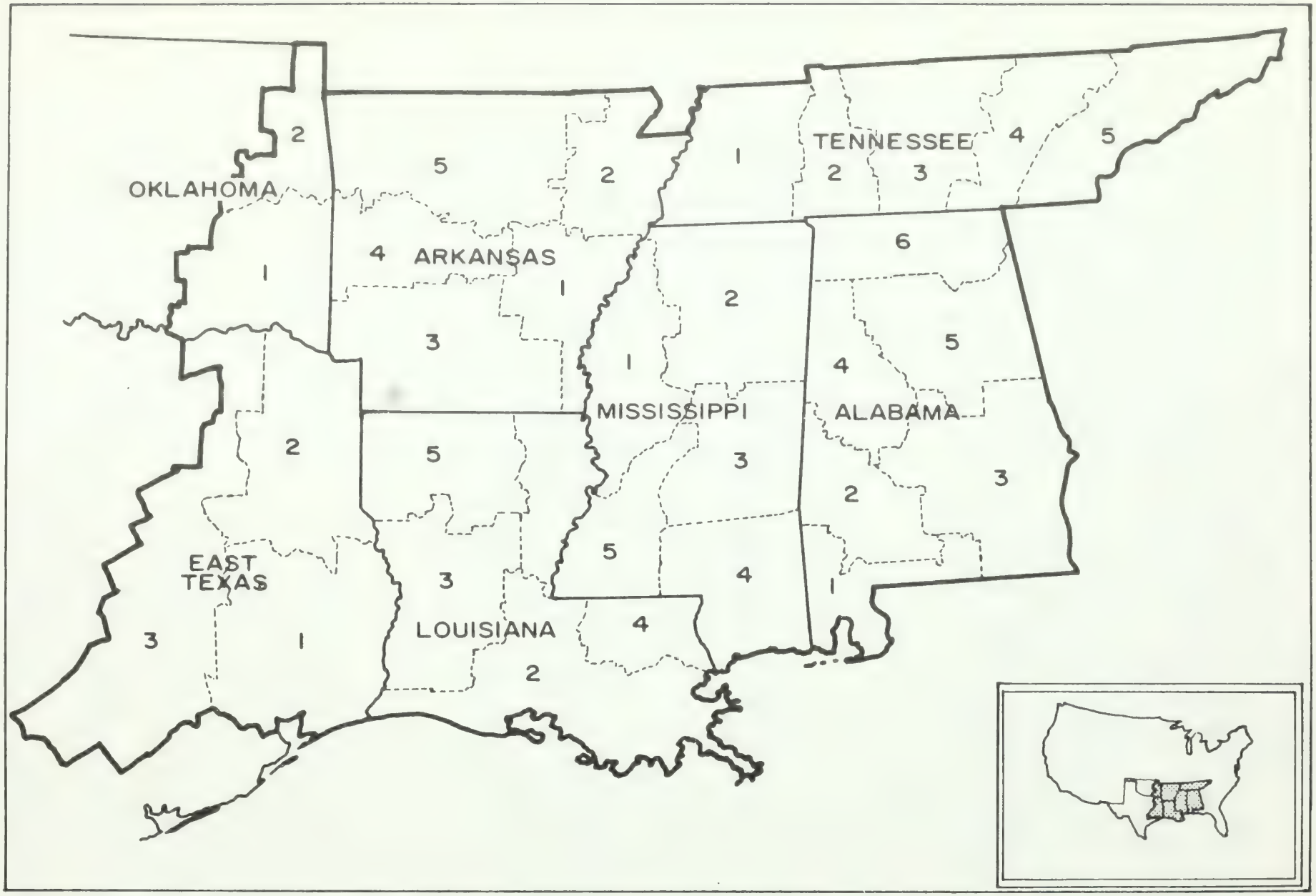


Figure 1.--*States and survey regions of the Midsouth.*

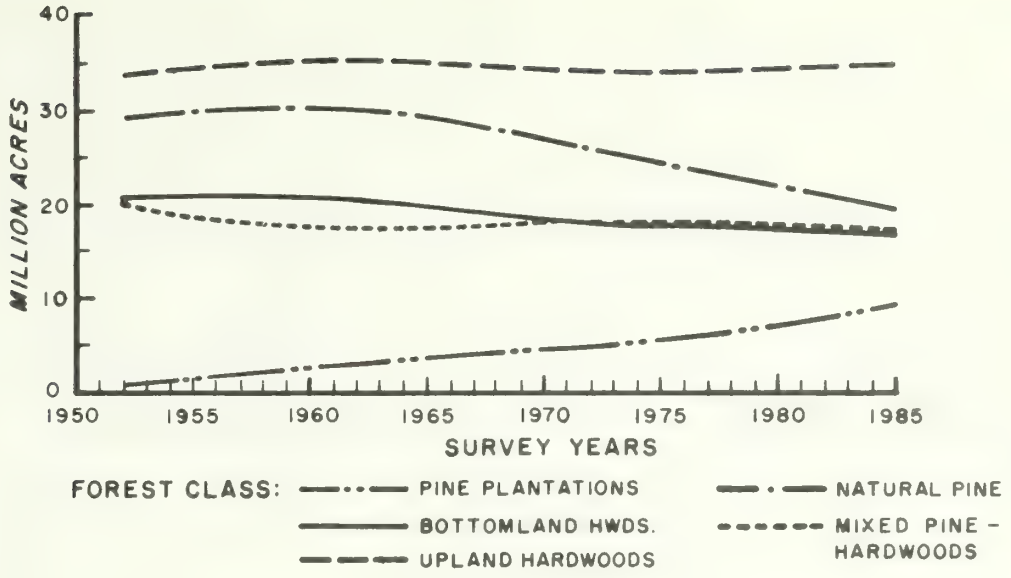


Figure 2.--*Timberland area by forest class for all owners in the Midsouth, 1952-1985.*

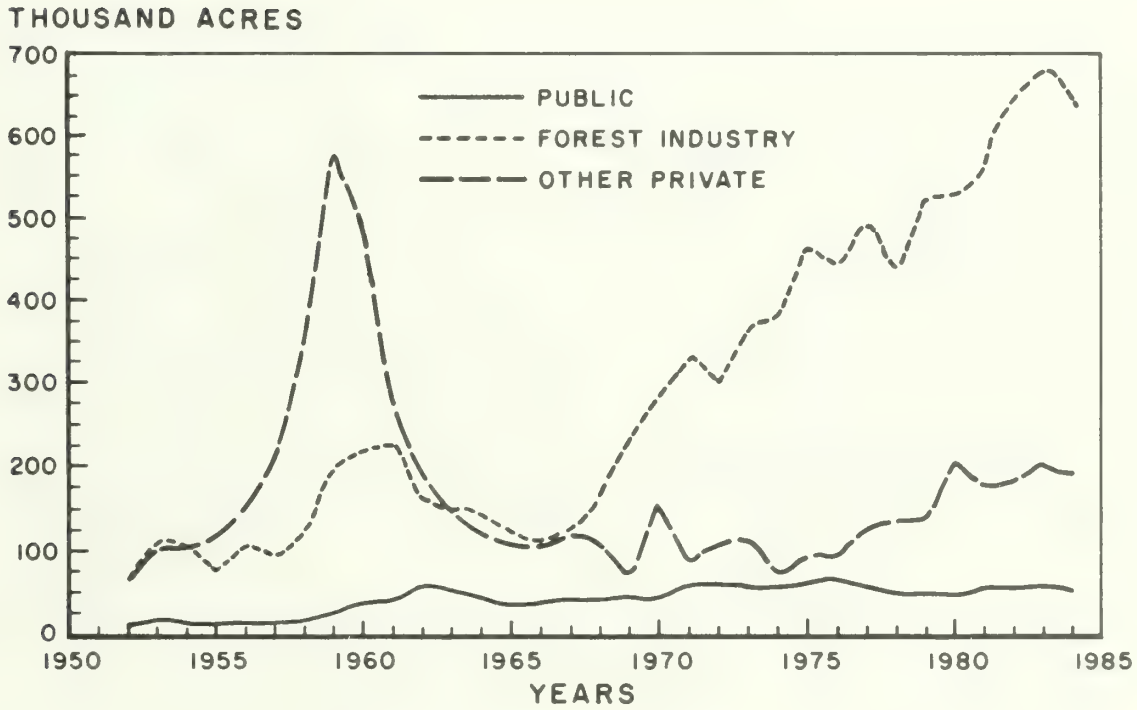


Figure 3.--*History of tree planting in the Midsouth by ownership class and year.*

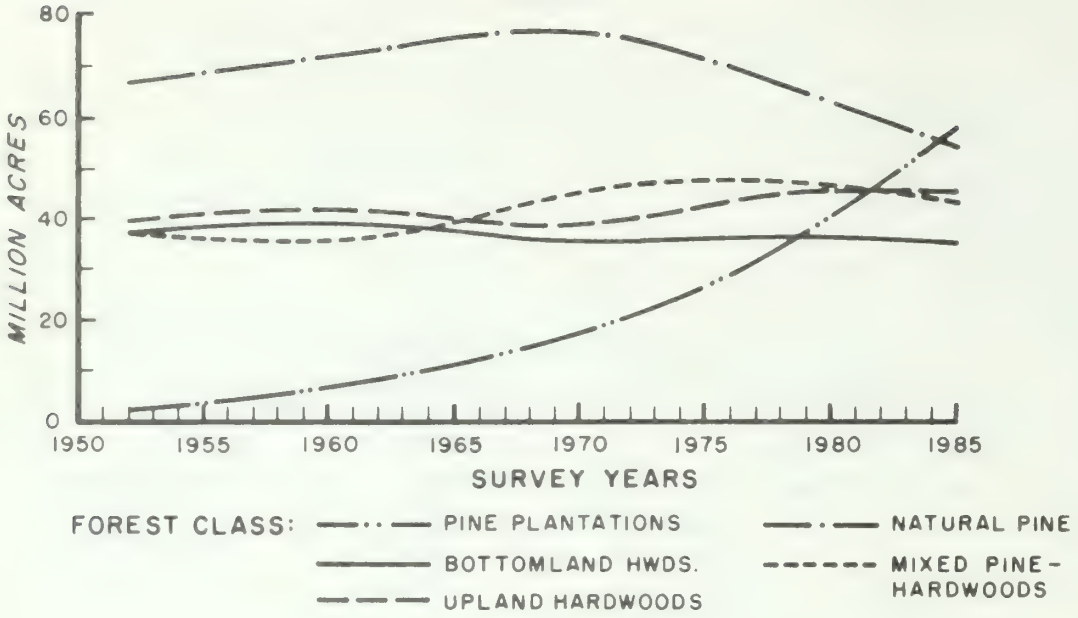


Figure 4.--*Timberland area by forest class for forest industry owners in the Midsouth, 1952-1985.*

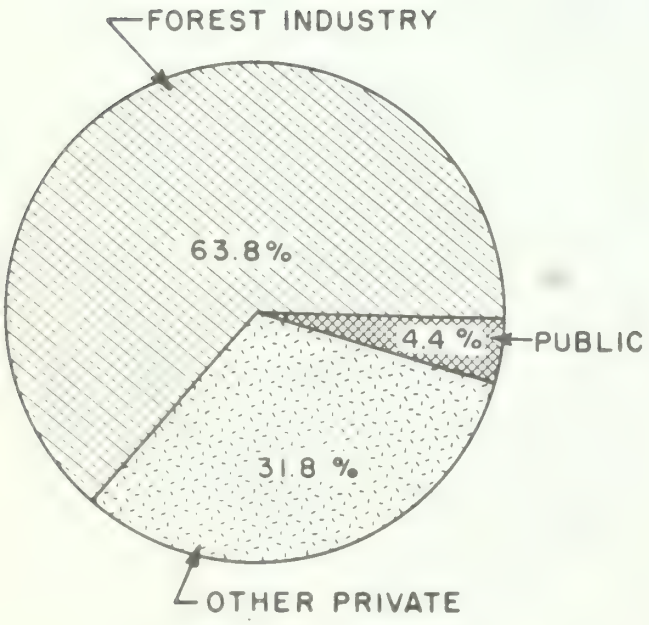


Figure 5.--*Proportion of planted pine by ownership class in the Midsouth, 1985.*

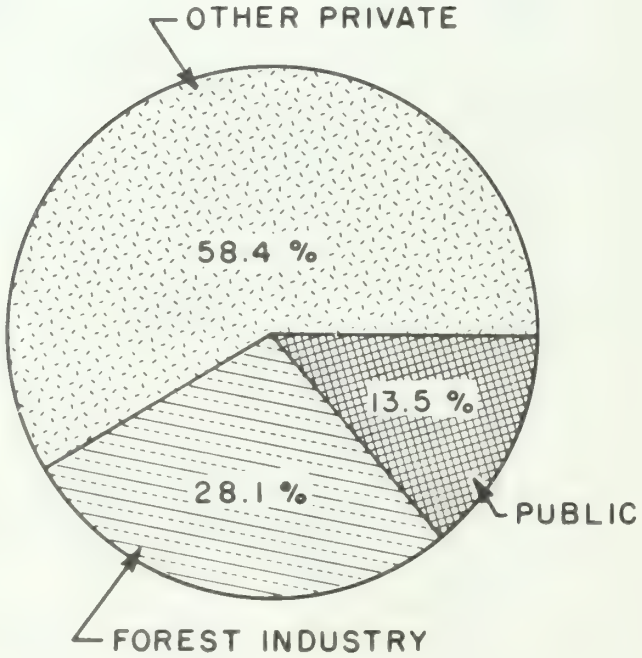


Figure 6.--*Proportion of natural pine by ownership class in the Midsouth, 1985.*

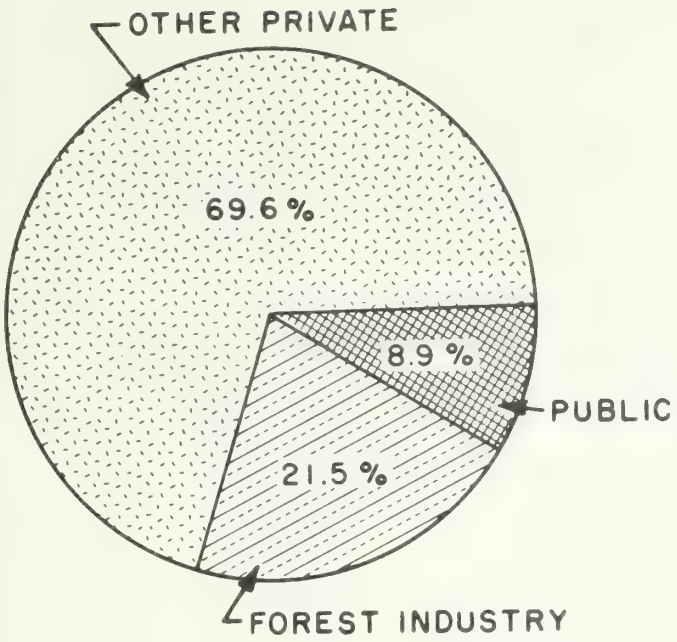


Figure 7.--*Proportion of bottomland hardwoods by ownership class in the Midsouth, 1985.*

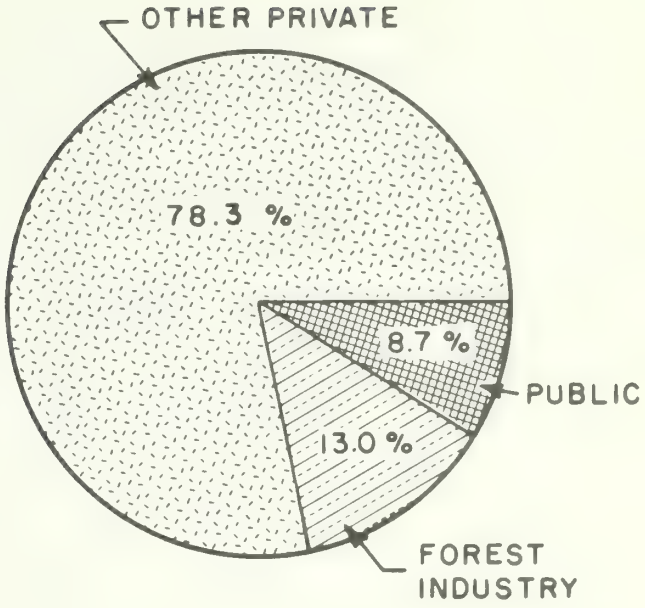


Figure 8.--*Proportion of upland hardwoods by ownership class in the Mid south, 1985.*

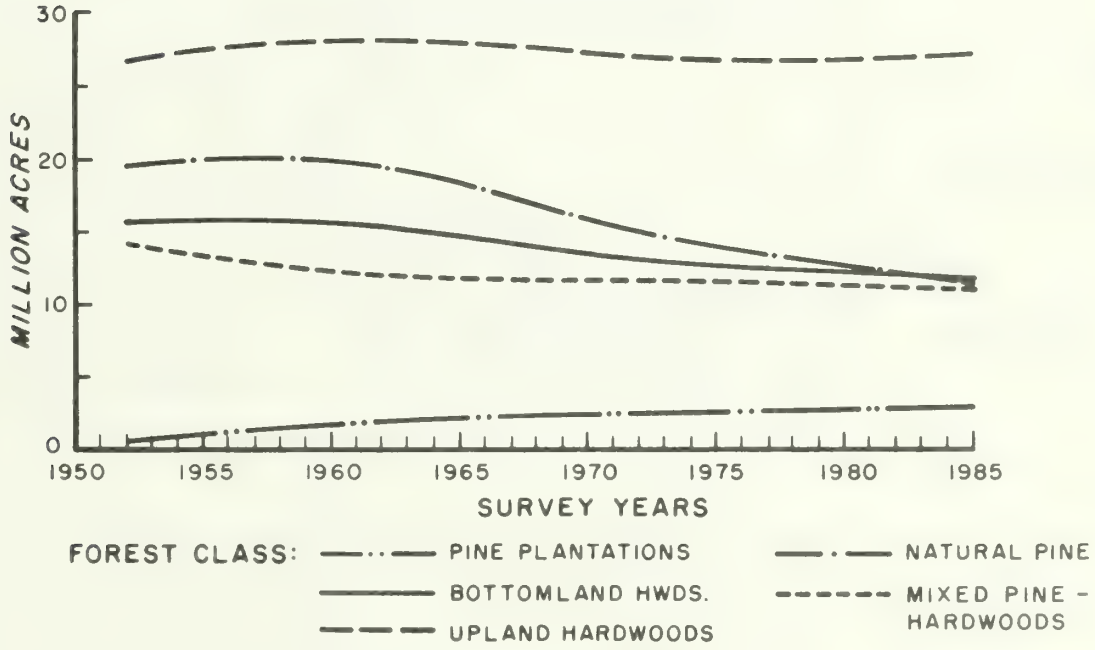


Figure 9.--*Timberland area by forest class for nonindustrial private forest owners in the Midsouth, 1952-1985.*

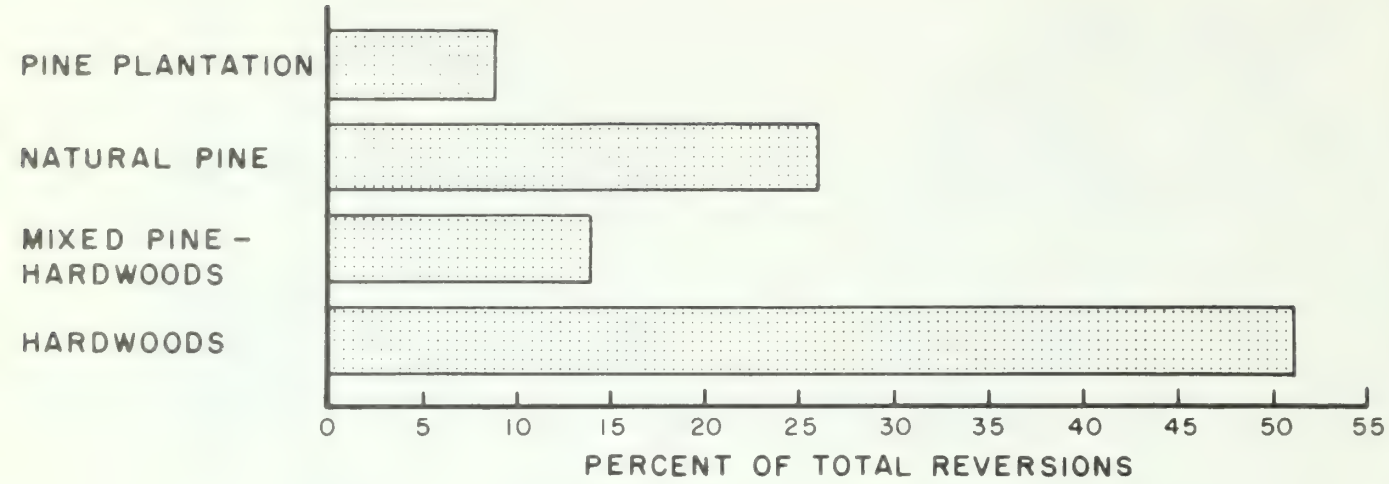


Figure 10.--*Reversions of agricultural land to timberland by forest class.*

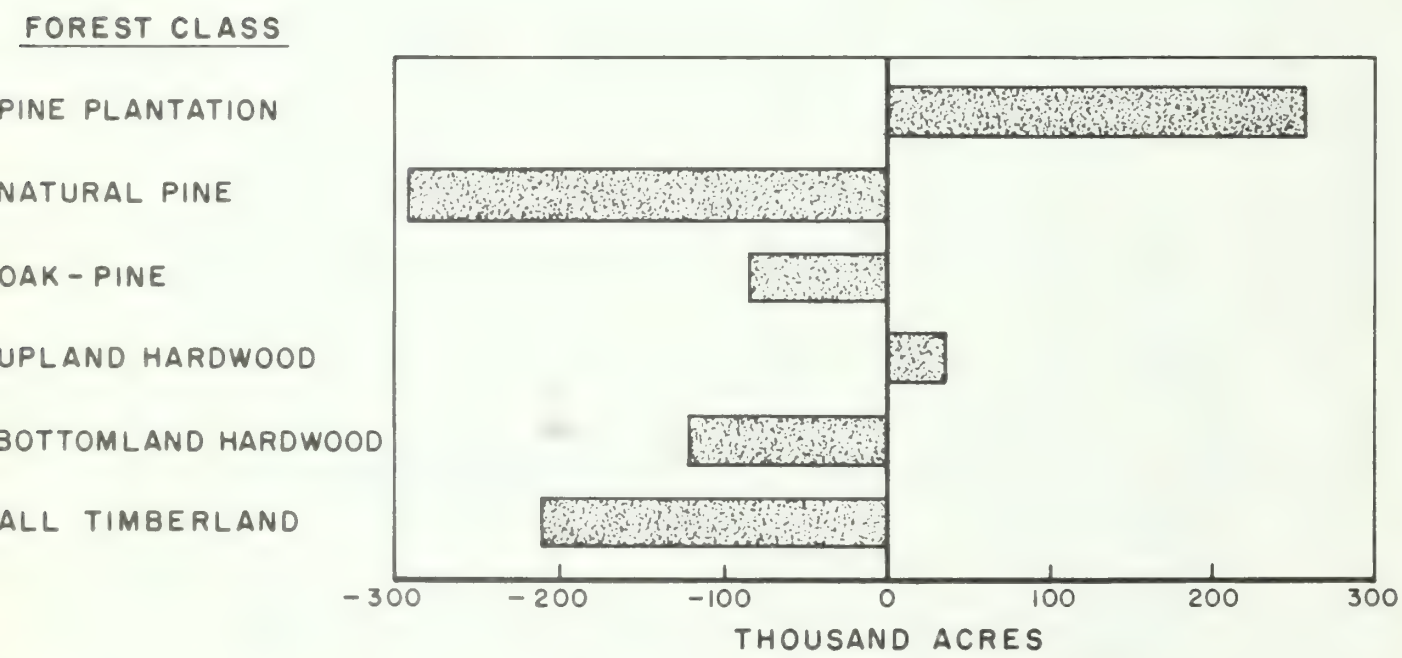


Figure 11.--*Average annual change in timberland acreage by forest class in the Midsouth, 1952-1985.*

# APPENDIX TABLES

Table 1.--*Area of timberland in the Midsouth, by ownership and forest class, selected years 1952-1985*

| Ownership and forest class | Year | | | | |
|---|---|---|---|---|---|
| | 1952 | 1962 | 1970 | 1977 | 1985 |
| | *thousand acres* | | | | |
| National Forest | | | | | |
| Pine plantations | 203 | 317 | 242 | 225 | 304 |
| Natural pine | 2,218 | 2,426 | 2,473 | 2,433 | 2,130 |
| Mixed pine-hardwoods | 1,198 | 1,130 | 1,189 | 1,258 | 1,301 |
| Upland hardwoods | 1,929 | 1,968 | 1,899 | 1,929 | 1,943 |
| Bottomland hardwoods | 362 | 296 | 242 | 221 | 224 |
| Total | 5,910 | 6,137 | 6,103 | 6,066 | 5,902 |
| Other public | | | | | |
| Pine plantations | 75 | 119 | 94 | 79 | 96 |
| Natural pine | 516 | 503 | 619 | 545 | 483 |
| Mixed pine-hardwoods | 631 | 487 | 488 | 459 | 494 |
| Upland hardwoods | 997 | 951 | 1,064 | 1,003 | 1,063 |
| Bottomland hardwoods | 856 | 863 | 1,012 | 1,059 | 1,249 |
| Total | 3,075 | 2,923 | 3,277 | 3,145 | 3,385 |
| Forest industry | | | | | |
| Pine plantations | 166 | 817 | 1,736 | 3,089 | 5,741 |
| Natural pine | 6,699 | 7,329 | 7,688 | 6,864 | 5,437 |
| Mixed pine-hardwoods | 3,810 | 3,644 | 4,514 | 4,722 | 4,334 |
| Upland hardwoods | 3,943 | 4,147 | 3,871 | 4,404 | 4,509 |
| Bottomland hardwoods | 3,735 | 3,879 | 3,517 | 3,727 | 3,557 |
| Total | 18,353 | 19,816 | 21,326 | 22,806 | 23,578 |
| Other private | | | | | |
| Pine plantations | 379 | 1,883 | 2,392 | 2,527 | 2,866 |
| Natural pine | 19,556 | 19,528 | 15,864 | 13,440 | 11,292 |
| Mixed pine-hardwoods | 14,274 | 12,071 | 11,747 | 11,547 | 10,971 |
| Upland hardwoods | 26,742 | 28,255 | 27,286 | 26,731 | 27,189 |
| Bottomland hardwoods | 15,694 | 15,398 | 13,520 | 12,433 | 11,538 |
| Total | 76,645 | 77,135 | 70,809 | 66,678 | 63,856 |
| Total, all ownerships | | | | | |
| Pine plantations | 823 | 3,136 | 4,464 | 5,920 | 9,007 |
| Natural pine | 28,989 | 29,786 | 26,644 | 23,282 | 19,342 |
| Mixed pine-hardwoods | 19,913 | 17,332 | 17,938 | 17,986 | 17,100 |
| Upland hardwoods | 33,611 | 35,321 | 34,120 | 34,067 | 34,704 |
| Bottomland hardwoods | 20,647 | 20,436 | 18,291 | 17,440 | 16,568 |
| Total | 103,983 | 106,011 | 101,515 | 98,695 | 96,721 |

Table 2.--*Area of timberland in Alabama, by ownership and forest class, selected years 1952-1985*

| Ownership and forest class | Year | | | | |
|---|---|---|---|---|---|
| | 1952 | 1962 | 1970 | 1977 | 1985 |
| | *thousand acres* | | | | |
| National Forest | | | | | |
| Pine plantations | 24 | 40 | 28 | 17 | 20 |
| Natural pine | 209 | 251 | 228 | 249 | 194 |
| Mixed pine-hardwoods | 202 | 166 | 178 | 206 | 178 |
| Upland hardwoods | 176 | 169 | 191 | 181 | 154 |
| Bottomland hardwoods | 5 | 5 | 5 | 6 | 5 |
| Total | 616 | 631 | 630 | 659 | 551 |
| Other public | | | | | |
| Pine plantations | 16 | 21 | 17 | 14 | 18 |
| Natural pine | 108 | 141 | 134 | 106 | 82 |
| Mixed pine-hardwoods | 99 | 83 | 93 | 101 | 104 |
| Upland hardwoods | 96 | 94 | 110 | 132 | 160 |
| Bottomland hardwoods | 33 | 32 | 37 | 79 | 108 |
| Total | 352 | 371 | 391 | 432 | 472 |
| Forest industry | | | | | |
| Pine plantations | 31 | 226 | 379 | 791 | 1,373 |
| Natural pine | 1,229 | 1,872 | 1,712 | 1,426 | 1,174 |
| Mixed pine-hardwoods | 1,035 | 1,055 | 1,193 | 1,120 | 1,024 |
| Upland hardwoods | 631 | 755 | 896 | 1,022 | 1,031 |
| Bottomland hardwoods | 314 | 370 | 435 | 497 | 533 |
| Total | 3,240 | 4,278 | 4,615 | 4,856 | 5,135 |
| Other private | | | | | |
| Pine plantations | 94 | 527 | 779 | 818 | 954 |
| Natural pine | 5,126 | 6,063 | 4,881 | 4,183 | 3,467 |
| Mixed pine-hardwoods | 4,467 | 3,535 | 3,518 | 3,366 | 3,077 |
| Upland hardwoods | 4,719 | 4,379 | 4,576 | 5,267 | 6,137 |
| Bottomland hardwoods | 2,143 | 1,959 | 2,028 | 1,917 | 1,784 |
| Total | 16,549 | 16,463 | 15,782 | 15,551 | 15,419 |
| Total, all ownerships | | | | | |
| Pine plantations | 165 | 814 | 1,203 | 1,640 | 2,365 |
| Natural pine | 6,672 | 8,327 | 6,955 | 5,964 | 4,917 |
| Mixed pine-hardwoods | 5,803 | 4,839 | 4,982 | 4,793 | 4,383 |
| Upland hardwoods | 5,622 | 5,397 | 5,773 | 6,602 | 7,482 |
| Bottomland hardwoods | 2,495 | 2,366 | 2,505 | 2,499 | 2,430 |
| Total | 20,757 | 21,743 | 21,418 | 21,498 | 21,577 |

Table 3.--*Area of timberland in Arkansas, by ownership and forest class, selected years 1952-1985*

| Ownership and forest class | Year | | | | |
|---|---|---|---|---|---|
| | 1952 | 1962 | 1970 | 1977 | 1985 |
| | *thousand acres* | | | | |
| National Forest | | | | | |
| Pine plantations | 8 | 24 | 10 | 17 | 26 |
| Natural pine | 816 | 863 | 826 | 759 | 734 |
| Mixed pine-hardwoods | 351 | 427 | 479 | 458 | 500 |
| Upland hardwoods | 1,102 | 1,056 | 1,048 | 1,110 | 1,098 |
| Bottomland hardwoods | 15 | 15 | 15 | 6 | 6 |
| Total | 2,292 | 2,385 | 2,378 | 2,350 | 2,364 |
| Other public | | | | | |
| Pine plantations | 2 | 5 | 2 | 5 | 7 |
| Natural pine | 26 | 16 | 16 | 28 | 26 |
| Mixed pine-hardwoods | 77 | 41 | 56 | 37 | 39 |
| Upland hardwoods | 225 | 115 | 193 | 169 | 163 |
| Bottomland hardwoods | 294 | 294 | 294 | 329 | 332 |
| Total | 624 | 471 | 561 | 568 | 567 |
| Forest industry | | | | | |
| Pine plantations | 21 | 57 | 110 | 186 | 681 |
| Natural pine | 1,693 | 1,631 | 1,554 | 1,613 | 1,392 |
| Mixed pine-hardwoods | 617 | 650 | 912 | 912 | 909 |
| Upland hardwoods | 1,114 | 951 | 609 | 667 | 603 |
| Bottomland hardwoods | 733 | 733 | 800 | 784 | 780 |
| Total | 4,178 | 4,022 | 3,985 | 4,162 | 4,365 |
| Other private | | | | | |
| Pine plantations | 24 | 75 | 134 | 207 | 276 |
| Natural pine | 1,946 | 2,180 | 1,784 | 1,482 | 1,225 |
| Mixed pine-hardwoods | 1,136 | 1,549 | 1,423 | 1,549 | 1,478 |
| Upland hardwoods | 6,059 | 6,229 | 5,929 | 4,745 | 4,106 |
| Bottomland hardwoods | 3,368 | 3,060 | 1,838 | 1,730 | 1,569 |
| Total | 12,533 | 13,093 | 11,108 | 9,713 | 8,654 |
| Total, all ownerships | | | | | |
| Pine plantations | 55 | 161 | 256 | 415 | 990 |
| Natural pine | 4,481 | 4,690 | 4,180 | 3,882 | 3,377 |
| Mixed pine-hardwoods | 2,181 | 2,667 | 2,870 | 2,956 | 2,926 |
| Upland hardwoods | 8,500 | 8,351 | 7,779 | 6,691 | 5,970 |
| Bottomland hardwoods | 4,410 | 4,102 | 2,947 | 2,849 | 2,687 |
| Total | 19,627 | 19,971 | 18,032 | 16,793 | 15,950 |

Table 4.--*Area of timberland in Louisiana, by ownership and forest class, selected years 1952-1985*

| Ownership and forest class | Year | | | | |
|---|---|---|---|---|---|
| | 1952 | 1962 | 1970 | 1977 | 1985 |
| | *thousand acres* | | | | |
| National Forest | | | | | |
| Pine plantations | 59 | 87 | 48 | 60 | 80 |
| Natural pine | 159 | 301 | 330 | 306 | 251 |
| Mixed pine-hardwoods | 107 | 91 | 108 | 120 | 101 |
| Upland hardwoods | 68 | 36 | 38 | 42 | 58 |
| Bottomland hardwoods | 142 | 60 | 55 | 53 | 53 |
| Total | 535 | 575 | 579 | 581 | 543 |
| Other public | | | | | |
| Pine plantations | 3 | 10 | 4 | 5 | 6 |
| Natural pine | 27 | 20 | 104 | 96 | 97 |
| Mixed pine-hardwoods | 33 | 49 | 38 | 43 | 45 |
| Upland hardwoods | 40 | 19 | 9 | 10 | 24 |
| Bottomland hardwoods | 210 | 210 | 288 | 289 | 422 |
| Total | 313 | 308 | 443 | 443 | 594 |
| Forest industry | | | | | |
| Pine plantations | 10 | 190 | 641 | 785 | 898 |
| Natural pine | 1,085 | 1,012 | 1,300 | 1,290 | 1,145 |
| Mixed pine-hardwoods | 612 | 500 | 645 | 692 | 727 |
| Upland hardwoods | 474 | 415 | 488 | 583 | 799 |
| Bottomland hardwoods | 1,533 | 1,489 | 1,017 | 1,056 | 756 |
| Total | 3,714 | 3,606 | 4,091 | 4,406 | 4,325 |
| Other private | | | | | |
| Pine plantations | 31 | 606 | 555 | 574 | 491 |
| Natural pine | 3,354 | 3,242 | 2,314 | 1,944 | 1,990 |
| Mixed pine-hardwoods | 1,892 | 1,602 | 1,408 | 1,276 | 1,018 |
| Upland hardwoods | 1,464 | 1,330 | 1,199 | 1,210 | 1,332 |
| Bottomland hardwoods | 4,736 | 4,767 | 4,541 | 3,858 | 3,504 |
| Total | 11,477 | 11,547 | 10,017 | 8,862 | 8,335 |
| Total, all ownerships | | | | | |
| Pine plantations | 103 | 893 | 1,248 | 1,424 | 1,475 |
| Natural pine | 4,625 | 4,575 | 4,048 | 3,636 | 3,483 |
| Mixed pine-hardwoods | 2,644 | 2,242 | 2,199 | 2,131 | 1,891 |
| Upland hardwoods | 2,046 | 1,800 | 1,734 | 1,845 | 2,213 |
| Bottomland hardwoods | 6,621 | 6,526 | 5,901 | 5,256 | 4,735 |
| Total | 16,039 | 16,036 | 15,130 | 14,292 | 13,797 |

Table 5.--*Area of timberland in Mississippi, by ownership and forest class, selected years 1952-1985*

| Ownership and forest class | Year | | | | |
|---|---|---|---|---|---|
| | 1952 | 1962 | 1970 | 1977 | 1985 |
| | *thousand acres* | | | | |
| National Forest | | | | | |
| Pine plantations | 79 | 123 | 101 | 80 | 99 |
| Natural pine | 436 | 460 | 467 | 519 | 378 |
| Mixed pine-hardwoods | 288 | 241 | 228 | 252 | 283 |
| Upland hardwoods | 108 | 145 | 133 | 143 | 161 |
| Bottomland hardwoods | 125 | 140 | 132 | 129 | 132 |
| Total | 1,036 | 1,109 | 1,119 | 1,123 | 1,053 |
| Other public | | | | | |
| Pine plantations | 10 | 17 | 24 | 28 | 39 |
| Natural pine | 217 | 197 | 225 | 174 | 141 |
| Mixed pine-hardwoods | 177 | 124 | 126 | 118 | 148 |
| Upland hardwoods | 68 | 76 | 75 | 69 | 85 |
| Bottomland hardwoods | 211 | 197 | 201 | 166 | 191 |
| Total | 683 | 611 | 651 | 555 | 604 |
| Forest industry | | | | | |
| Pine plantations | 78 | 208 | 348 | 482 | 977 |
| Natural pine | 851 | 883 | 927 | 843 | 651 |
| Mixed pine-hardwoods | 670 | 534 | 543 | 689 | 633 |
| Upland hardwoods | 358 | 456 | 450 | 562 | 513 |
| Bottomland hardwoods | 564 | 601 | 617 | 719 | 786 |
| Total | 2,521 | 2,682 | 2,885 | 3,295 | 3,560 |
| Other private | | | | | |
| Pine plantations | 117 | 297 | 460 | 531 | 609 |
| Natural pine | 3,643 | 3,593 | 3,489 | 2,644 | 1,781 |
| Mixed pine-hardwoods | 3,174 | 2,406 | 2,265 | 2,393 | 2,496 |
| Upland hardwoods | 3,007 | 3,642 | 3,334 | 3,466 | 3,588 |
| Bottomland hardwoods | 2,672 | 2,704 | 2,572 | 2,498 | 2,381 |
| Total | 12,613 | 12,642 | 12,120 | 11,532 | 10,855 |
| Total, all ownerships | | | | | |
| Pine plantations | 284 | 645 | 933 | 1,121 | 1,724 |
| Natural pine | 5,147 | 5,133 | 5,108 | 4,180 | 2,951 |
| Mixed pine-hardwoods | 4,309 | 3,305 | 3,162 | 3,452 | 3,560 |
| Upland hardwoods | 3,541 | 4,319 | 3,992 | 4,240 | 4,347 |
| Bottomland hardwoods | 3,572 | 3,642 | 3,522 | 3,512 | 3,490 |
| Total | 16,853 | 17,044 | 16,775 | 16,505 | 16,072 |

Table 6.--*Area of timberland in Oklahoma, by ownership and forest class, selected years 1952-1985*

| Ownership and forest class | Year | | | | |
|---|---|---|---|---|---|
| | 1952 | 1962 | 1970 | 1977 | 1985 |
| | *thousand acres* | | | | |
| National Forest | | | | | |
| Pine plantations | 2 | 5 | 10 | 17 | 30 |
| Natural pine | 28 | 40 | 84 | 83 | 75 |
| Mixed pine-hardwoods | 18 | 30 | 36 | 38 | 39 |
| Upland hardwoods | 151 | 130 | 83 | 75 | 65 |
| Bottomland hardwoods | 14 | 18 | 6 | 6 | 5 |
| Total | 213 | 223 | 219 | 219 | 214 |
| Other public | | | | | |
| Pine plantations | 0 | 0 | 0 | 0 | 0 |
| Natural pine | 56 | 61 | 37 | 42 | 48 |
| Mixed pine-hardwoods | 45 | 52 | 32 | 36 | 41 |
| Upland hardwoods | 291 | 203 | 194 | 185 | 175 |
| Bottomland hardwoods | 29 | 28 | 80 | 81 | 80 |
| Total | 421 | 344 | 343 | 344 | 344 |
| Forest industry | | | | | |
| Pine plantations | 1 | 6 | 29 | 210 | 489 |
| Natural pine | 129 | 126 | 365 | 268 | 123 |
| Mixed pine-hardwoods | 109 | 111 | 256 | 260 | 150 |
| Upland hardwoods | 593 | 546 | 241 | 233 | 246 |
| Bottomland hardwoods | 57 | 76 | 42 | 44 | 47 |
| Total | 889 | 865 | 933 | 1,015 | 1,055 |
| Other private | | | | | |
| Pine plantations | 3 | 22 | 11 | 11 | 21 |
| Natural pine | 515 | 505 | 265 | 263 | 284 |
| Mixed pine-hardwoods | 435 | 444 | 348 | 342 | 365 |
| Upland hardwoods | 2,371 | 2,184 | 2,178 | 1,834 | 1,724 |
| Bottomland hardwoods | 228 | 305 | 323 | 291 | 263 |
| Total | 3,552 | 3,460 | 3,125 | 2,741 | 2,657 |
| Total, all ownerships | | | | | |
| Pine plantations | 6 | 33 | 50 | 238 | 540 |
| Natural pine | 728 | 732 | 751 | 656 | 530 |
| Mixed pine-hardwoods | 607 | 637 | 672 | 676 | 595 |
| Upland hardwoods | 3,406 | 3,063 | 2,696 | 2,327 | 2,210 |
| Bottomland hardwoods | 328 | 427 | 451 | 422 | 395 |
| Total | 5,075 | 4,892 | 4,620 | 4,319 | 4,270 |

Table 7.--*Area of timberland in Tennessee, by ownership and forest class, selected years 1952-1985*

| Ownership and forest class | Year | | | | |
|---|---|---|---|---|---|
| | 1952 | 1962 | 1970 | 1977 | 1985 |
| | *thousand acres* | | | | |
| National Forest | | | | | |
| Pine plantations | 2 | 5 | 2 | 0 | 0 |
| Natural pine | 126 | 94 | 104 | 93 | 94 |
| Mixed pine-hardwoods | 162 | 108 | 106 | 109 | 110 |
| Upland hardwoods | 274 | 384 | 388 | 356 | 380 |
| Bottomland hardwoods | 0 | 0 | 0 | 0 | 0 |
| Total | 564 | 591 | 600 | 558 | 584 |
| Other public | | | | | |
| Pine plantations | 40 | 56 | 39 | 21 | 18 |
| Natural pine | 25 | 9 | 48 | 44 | 42 |
| Mixed pine-hardwoods | 166 | 110 | 121 | 102 | 93 |
| Upland hardwoods | 259 | 360 | 410 | 378 | 390 |
| Bottomland hardwoods | 60 | 73 | 69 | 58 | 60 |
| Total | 550 | 608 | 687 | 603 | 603 |
| Forest industry | | | | | |
| Pine plantations | 9 | 38 | 55 | 112 | 141 |
| Natural pine | 89 | 73 | 77 | 63 | 59 |
| Mixed pine-hardwoods | 148 | 106 | 165 | 143 | 127 |
| Upland hardwoods | 432 | 645 | 787 | 814 | 859 |
| Bottomland hardwoods | 86 | 112 | 92 | 97 | 107 |
| Total | 764 | 974 | 1,176 | 1,229 | 1,293 |
| Other private | | | | | |
| Pine plantations | 55 | 198 | 221 | 180 | 159 |
| Natural pine | 1,453 | 988 | 790 | 823 | 826 |
| Mixed pine-hardwoods | 1,715 | 1,004 | 1,203 | 1,100 | 968 |
| Upland hardwoods | 6,645 | 8,147 | 7,607 | 7,770 | 7,852 |
| Bottomland hardwoods | 805 | 855 | 537 | 599 | 652 |
| Total | 10,673 | 11,192 | 10,358 | 10,472 | 10,457 |
| Total, all ownerships | | | | | |
| Pine plantations | 106 | 297 | 317 | 313 | 318 |
| Natural pine | 1,693 | 1,164 | 1,019 | 1,023 | 1,021 |
| Mixed pine-hardwoods | 2,191 | 1,328 | 1,595 | 1,454 | 1,298 |
| Upland hardwoods | 7,610 | 9,536 | 9,192 | 9,318 | 9,481 |
| Bottomland hardwoods | 951 | 1040 | 698 | 754 | 819 |
| Total | 12,551 | 13,365 | 12,821 | 12,862 | 12,937 |

Table 8.--*Area of timberland in Texas, by ownership and forest class, selected years 1952-1985*

| Ownership and forest class | Year | | | | |
|---|---|---|---|---|---|
| | 1952 | 1962 | 1970 | 1977 | 1985 |
| | *thousand acres* | | | | |
| National Forest | | | | | |
| Pine plantations | 29 | 33 | 43 | 34 | 49 |
| Natural pine | 444 | 417 | 434 | 424 | 404 |
| Mixed pine-hardwoods | 70 | 67 | 54 | 75 | 90 |
| Upland hardwoods | 50 | 48 | 18 | 22 | 27 |
| Bottomland hardwoods | 61 | 58 | 29 | 21 | 23 |
| Total | 654 | 623 | 578 | 576 | 593 |
| Other public | | | | | |
| Pine plantations | 4 | 10 | 8 | 6 | 8 |
| Natural pine | 57 | 59 | 55 | 55 | 47 |
| Mixed pine-hardwoods | 34 | 28 | 22 | 22 | 24 |
| Upland hardwoods | 18 | 84 | 73 | 60 | 66 |
| Bottomland hardwoods | 19 | 29 | 43 | 57 | 56 |
| Total | 132 | 210 | 201 | 200 | 201 |
| Forest industry | | | | | |
| Pine plantations | 16 | 92 | 174 | 523 | 1,182 |
| Natural pine | 1,623 | 1,732 | 1,753 | 1,361 | 893 |
| Mixed pine-hardwoods | 619 | 688 | 800 | 906 | 764 |
| Upland hardwoods | 341 | 379 | 400 | 523 | 458 |
| Bottomland hardwoods | 448 | 498 | 514 | 530 | 548 |
| Total | 3,047 | 3,389 | 3,641 | 3,843 | 3,845 |
| Other private | | | | | |
| Pine plantations | 55 | 158 | 232 | 206 | 356 |
| Natural pine | 3,519 | 2,957 | 2,341 | 2,101 | 1,719 |
| Mixed pine-hardwoods | 1,455 | 1,531 | 1,582 | 1,521 | 1,569 |
| Upland hardwoods | 2,477 | 2,344 | 2,463 | 2,439 | 2,450 |
| Bottomland hardwoods | 1,742 | 1,748 | 1,681 | 1,540 | 1,385 |
| Total | 9,248 | 8,738 | 8,299 | 7,807 | 7,479 |
| Total, all ownerships | | | | | |
| Pine plantations | 104 | 293 | 457 | 769 | 1,595 |
| Natural pine | 5,643 | 5,165 | 4,583 | 3,941 | 3,063 |
| Mixed pine-hardwoods | 2,178 | 2,314 | 2,458 | 2,524 | 2,447 |
| Upland hardwoods | 2,886 | 2,855 | 2,954 | 3,044 | 3,001 |
| Bottomland hardwoods | 2,270 | 2,333 | 2,267 | 2,148 | 2,012 |
| Total | 13,081 | 12,960 | 12,719 | 12,426 | 12,118 |

Birdsey, Richard A.; McWilliams, William H. Midsouth forest area trends. Resour. Bull. SO-107. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1986. 17p.

Timberland area trend estimates are presented for the Midsouth and for its individual states. Planted pine has increased to a 9 percent share of all Midsouth timberland. Natural pine has decreased from 28 percent to 20 percent of timberland between 1952 and 1985. Bottomland hardwood areas continue to decline. Upland hardwood type acreage is increasing.

Additional keywords: forest area, forest trends, forest ownership, forest type.

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# Midsouth Timber Statistics

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## INTRODUCTION

The Forest Inventory and Analysis Unit of the Southern Forest Experiment Station (Forest Survey) conducts periodic inventories about every 10 years covering forest resources of the Midsouth states (fig. 1). This report summarizes recent resource inventories of Alabama, Arkansas, Louisiana, Mississippi, East Oklahoma, Tennessee, and East Texas. Appendix tables present summaries of timberland area, growing-stock volume, ownership class, forest class, site class, and stocking level (refer to Definition of Terms for clarification).

Information contained in this report was compiled from Forest Survey's plot-level data base as part of a review of the Southern timber supply situation. Area and volume statistics may not exactly parallel previously published statistics because sample plot data was not adjusted to agree with enumerated National Forest data as has been done in some publications. Deviations are most notable for ownership breakdowns. Readers interested in updated forest area statistics that include adjustments for the National Forest ownership should refer to a companion report on trends in forest area (Birdsey and McWilliams 1985).

## OWNERSHIP

Midsouth forest resources are controlled by private owners including forest industry, farmer, miscellaneous corporate, and other private categories. The largest portion of timberland (38 percent) is in the other private category (fig. 2). Other private owners and farmers have smaller shares of growing-stock and sawtimber volumes than of timberland area. Forest industry has higher proportions of both growing-stock and sawtimber volumes than of timberland area. Forest industry stands are concentrated on better sites with higher stocking. Miscellaneous corporate owners hold 6 percent of Midsouth timberland and a similar share of the volume.

National forest land occupies 7 percent of the timberland base with a considerably higher proportion of volume. National Forest timber stands are relatively older than private forests. Other public owners account for only 4 percent of Midsouth timberland.

## FOREST CLASS

Pine and mixed pine-hardwood types constitute roughly half of the Midsouth's timberland. Natural pine is the most prevalent, contributing the bulk of both growing-stock and sawtimber volumes (fig. 3). Pine plantations comprise only 6 percent of the timberland and slightly smaller volumes. The most current statistics are based on relatively old information for some states, and hence do not reflect recent increases in the area of pine plantations, especially in the forest industry ownership class. Also, some young pine plantations are classified as mixed pine-hardwood or hardwood types until pines outgrow hardwood competition to achieve a plurality of stocking (table I). Most of this acreage represents partially successful plantations and plantations with considerable hardwood competition. Conversion of natural pine and mixed pine-hardwoods to pine plantations has increased dramatically since the mid 1970's and will account for a larger share of the South's timberland

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William H. McWilliams and Richard A. Birdsey are Research Foresters, Forestry Sciences Laboratory, Southern Forest Experiment Station, U.S. Forest Service, Starkville, Mississippi, 39759.

in the future (Birdsey and Mcwilliams 1986; McWilliams and Birdsey 1984). This shift will show up most prominently on forest industry properties. Increases in forest industry softwood growing-stock inventory can be expected as an increasing number of plantation trees grow into the lower limit of merchantability used by Forest Survey (5.0 inches diameter at breast height).

Upland hardwoods occupy more than one-third of the Midsouth timberland area but comprise considerably less of the growing-stock volume. Individual hardwood trees usually contain less merchantable volume than pines of the same diameter. Moreover, upland oaks tend to be concentrated on poorer sites and receive less active forest management than pine types.

Bottomland hardwoods account for 17 percent of the timberland area and somewhat higher shares of both growing-stock and sawtimber volumes.

## PRODUCTIVITY

Productivity is assessed by using species that are present at the time of measurement. The data show that about half of the timberland is capable of growing 85 cubic feet or more per acre annually (fig. 4). Such sites carry relatively higher proportions of both growing-stock and sawtimber volumes. The remaining acreage occurs primarily on medium sites and only a minor portion occurs on poor sites.

## STOCKING

Stocking, as used in this bulletin, is a measure of the degree to which a site is occupied by growing-stock trees. Forest Survey estimates stocking in relation to a density standard based on a plot-level tree count. When a large number of plots are grouped, the level of tree stocking relates directly to volume production. More than three-fourths of the timberland area in the Midsouth is at least 60 percent stocked with growing-stock trees (fig. 5). This land base contributes 90 percent of both growing-stock and sawtimber volumes.

## RELIABILITY

The data on forest acreage and timber volume were estimated from a systematic sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurements of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart.

Forest Survey sampling methods provide accurate estimates of timberland area and volume at the Midsouth region level (table II). State-level sampling errors are slightly higher. Sampling errors increase as the area considered decreases. Estimates of sampling errors for the various breakdowns of timber statistics presented in this bulletin can be derived using the following:

$$SE_{TS} = \frac{SE_T \sqrt{X_T}}{\sqrt{X_{TS}}}$$

where:

$SE_{TS}$ = standard error of estimate for the timber statistic (area or volume) of interest (expressed as a percent)

$SE_T$ = standard error of estimate for the state or Midsouth region (expressed as a percent)

$X_T$ = state or Midsouth total for the variable of interest (area or volume)

$X_{TS}$ = total for the timber statistic of interest (area or volume)

As an example, the standard error percent for high site natural pine timberland owned by forest industry in the Midsouth is computed as follows:

$SE_T$ = 0.1 (table II)

$X_T$ = 98,298.3 (table 1 of Appendix)

$X_{TS}$ = 4,411.6 (table 1 of Appendix)

$$SE_{TS} = \frac{0.1\sqrt{98,298.3}}{\sqrt{4,411.6}}$$

= 0.5 percent.

Therefore, the area of high site natural pine timberland owned by forest industry in the Midsouth lies between 4,389.5 and 4,433.7 thousand acres with a probability of two chances out of three. The computation of sampling errors for any other breakdown of timberland area or volume follows this logic.

## DEFINITIONS OF TERMS

*Forest class*.--A classification of Forest Survey plots according to forest type (based on the plurality of all live trees tallied) and stand origin.

*Pine plantations*.--Forests in which pines comprise the plurality of stocking and that originated from either planting or direct seeding.

*Natural pine*.--Forests in which pines comprise the plurality of stocking with no evidence of artificial regeneration (includes stands established by seed trees).

*Mixed pine-hardwoods*.--Forests in which hardwoods comprise the plurality of stocking, but in which pines comprise 25 to 50 percent of the stocking.

*Upland hardwoods*.--Forests in which upland hardwood species, singly or in combination, comprise the plurality of stocking, except where pines comprise 25 to 50 percent of the stocking, in which case the plot would be classified as mixed pine-hardwoods.

*Bottomland hardwoods*.--Includes forests in which bottomland hardwood species, singly or in combination, comprise a plurality of stocking except where pines comprise 25 to 50 percent, in which case the plot would be classified mixed pine-hardwoods.

*Growing-stock volume*.--The volume of sound wood in the bole of trees 5.0 inches dbh and larger from a 1-foot stump to a minimum 4.0-inch top diameter (outside bark) or to a point where the central stem breaks into limbs. Trees that are unmerchantable for saw logs (currently or potentially because of defect or rot) are excluded.

### Ownership Classes

*National Forest*.--Federal lands which have been legally designated as National Forests or purchase units, and other lands under the administration of the Forest Service.

*Other public*.--Land owned by federal (excluding National Forest land), state, county, or municipal governments.

*Forest industry*.--Land owned or leased by companies or individuals operating wood-using plants.

*Farmer*.--Lands from which $1,000 or more of agricultural products were sold or normally would have been sold during a year's operation.

*Miscellaneous corporate*.--Land held by any corporation not operating a wood-using plant.

*Other private*.--Privately owned land excluding land owned by forest industry, farmer, and miscellaneous corporate classes.

*Sawtimber volume*.--The volume of sound wood in the saw-log portion of softwood trees 9.0 inches dbh and larger, and hardwood trees 11.0 inches dbh and larger, containing at least one 12-foot saw log. Sawtimber volume is expressed in board feet, International Rule, 1/4 inch kerf.

*Site class*.--A classification of forest land based on potential yield in cubic feet per acre of mean annual growth at culmination of the increment in fully stocked natural stands.

*High*--85 or more cubic feet per acre, per year.

*Medium*--50 to 85 cubic feet per acre, per year.

*Poor*--less than 50 cubic feet per acre, per year.

*Stocking*.--A measure of the extent to which the growth potential of the site is utilized by trees or preempted by vegetative cover. Stocking is determined by comparing the stand density in terms of number of trees or basal area with a specified standard. The tabulation below shows the density standard in terms of trees per acre, by size class, required for full stocking:

| D.b.h. (inches) | Number of trees |
|---|---|
| Seedlings | 600 |
| 2 | 560 |
| 4 | 460 |
| 6 | 340 |
| 8 | 240 |
| 10 | 155 |
| 12 | 115 |
| 14 | 90 |
| 16 | 72 |
| 18 | 60 |
| 20 | 51 |
| 22 | 42 |
| 24 | 36 |
| 26 | 31 |
| 28 | 27 |
| 30 | 24 |

Stocking level is classified as follows:

*High*--100 percent or more stocked.

*Medium*--60 to 100 percent stocked.

*Low*--less than 60 percent stocked.

*Timberland*.--Land at least 16.7 percent stocked by forest trees of any size or formerly having such tree cover, that is capable of producing crops of industrial wood. Land that is currently developed for nonforest use or withdrawn from timber utilization through statute or administrative regulation is excluded.

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McWilliams, W. H. and Birdsey, R. A. Loblolly pine resource of the Midsouth. In: Proceedings of the symposium on the Loblolly pine ecosystem (West Region). Jackson, MS, 3/20/84-3/22/84. 1984. pp. 41-58.

Table I.--*Area of timberland classified as plantations by state, survey year, and forest class, Midsouth.*

| State | Survey year | Pine plantations | Mixed pine-hardwoods | Hardwoods[1] |
|---|---|---|---|---|
| | | *thousand acres* | | |
| Alabama | 1982 | 2,008.1 | 526.0 | 256.9 |
| Arkansas | 1978 | 437.8 | 275.0 | 173.4 |
| Louisiana | 1984 | 1,470.8 | 221.1 | 273.0 |
| Mississippi | 1977 | 1,121.1 | 404.7 | 304.7 |
| Oklahoma | 1976 | 43.9 | 38.1 | 28.4 |
| Tennessee | 1980 | 314.4 | 86.3 | 130.9 |
| Texas | 1975 | 569.6 | 61.8 | 60.3 |
| Midsouth | | 5,965.7 | 1,613.0 | 1,227.6 |

[1]Includes upland hardwoods and bottomland hardwoods.

Table II.--*Sampling errors for estimates of timberland, and growing-stock volumes, Midsouth.*

| Sampling[1] error | Year of survey | Timberland | Growing-stock[2] volume |
|---|---|---|---|
| | | *percent* | |
| Alabama | 1982 | 0.3 | 1.4 |
| Arkansas | 1978 | 0.3 | 1.3 |
| Louisiana | 1984 | 0.3 | 1.9 |
| Mississippi | 1977 | 0.3 | 1.4 |
| Oklahoma | 1976 | 0.7 | 3.4 |
| Tennessee | 1980 | 0.3 | 1.5 |
| Texas | 1975 | 0.3 | 1.6 |
| Midsouth | | 0.1 | 0.6 |

[1]By random-sampling formula.
[2]Growing-stock volume on timberland.

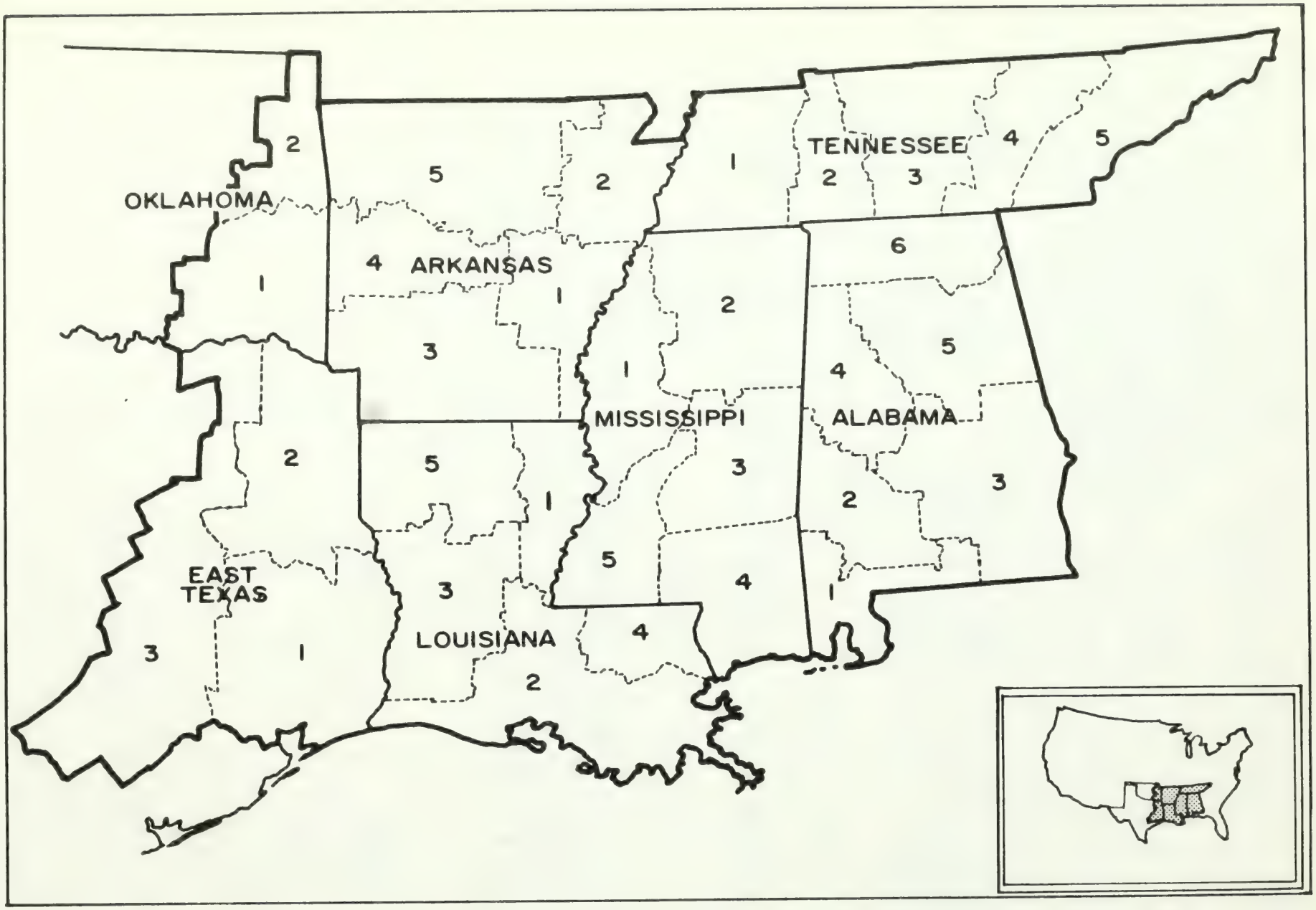


Figure 1.--*States and survey regions of the Midsouth.*

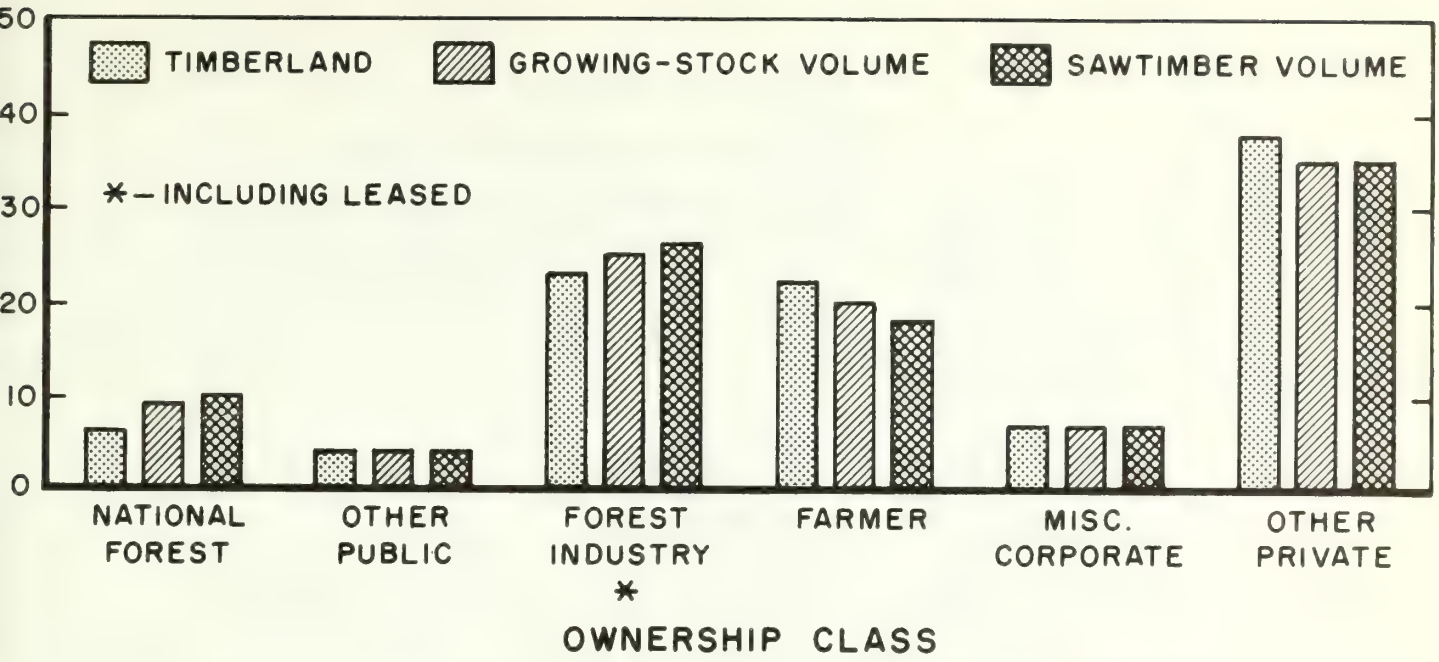


Figure 2.--*Percentage of timberland area, growing-stock volume, and sawtimber volume by ownership class, Midsouth.*

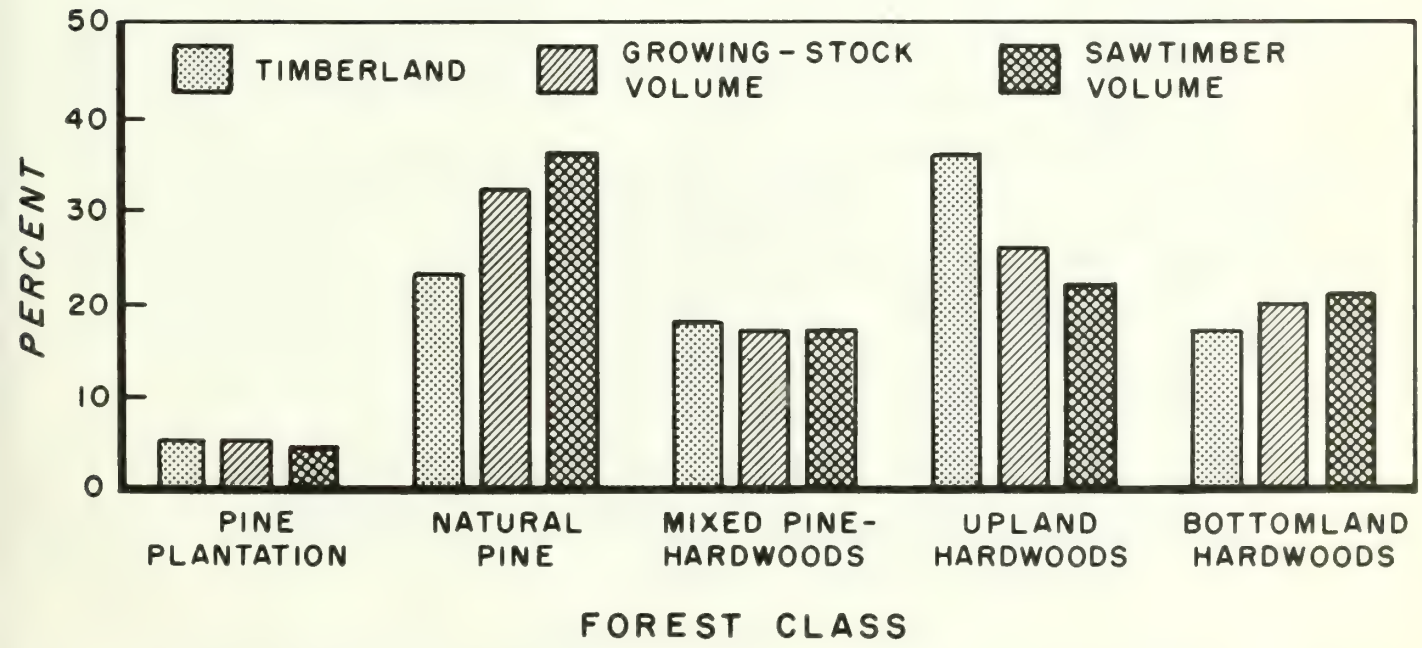


Figure 3.--*Percentage of timberland area, growing-stock volume, and sawtimber volume by forest class, Midsouth.*

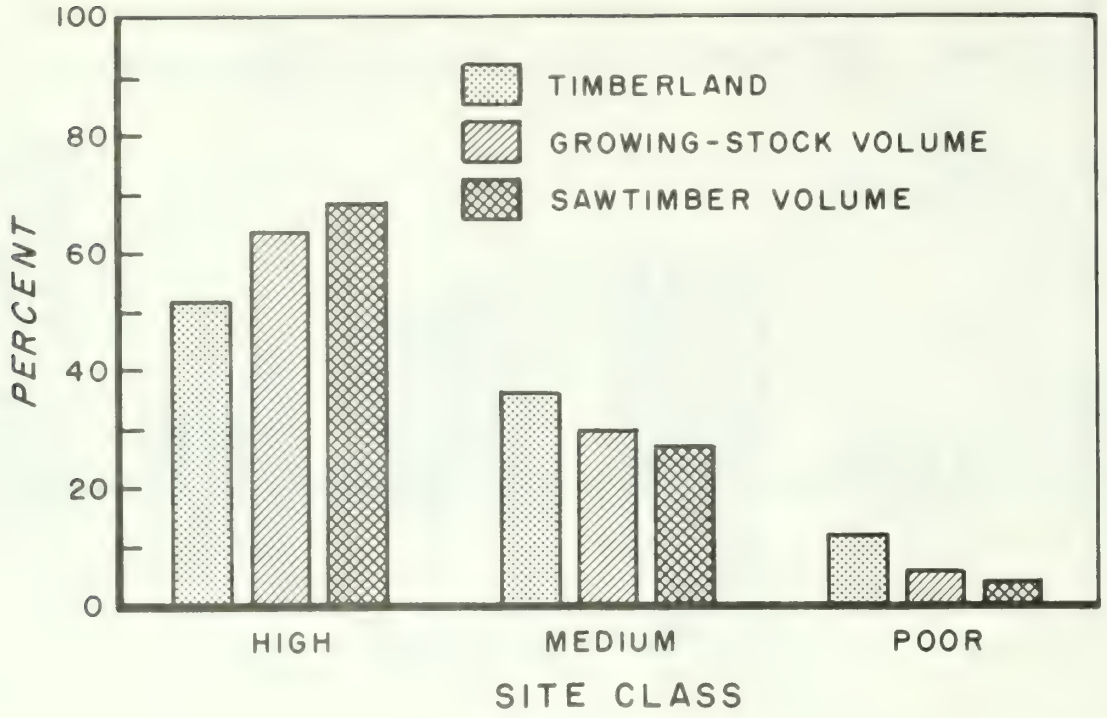


Figure 4.--*Percentage of timberland area, growing-stock volume, and sawtimber volume by site class, Midsouth.*

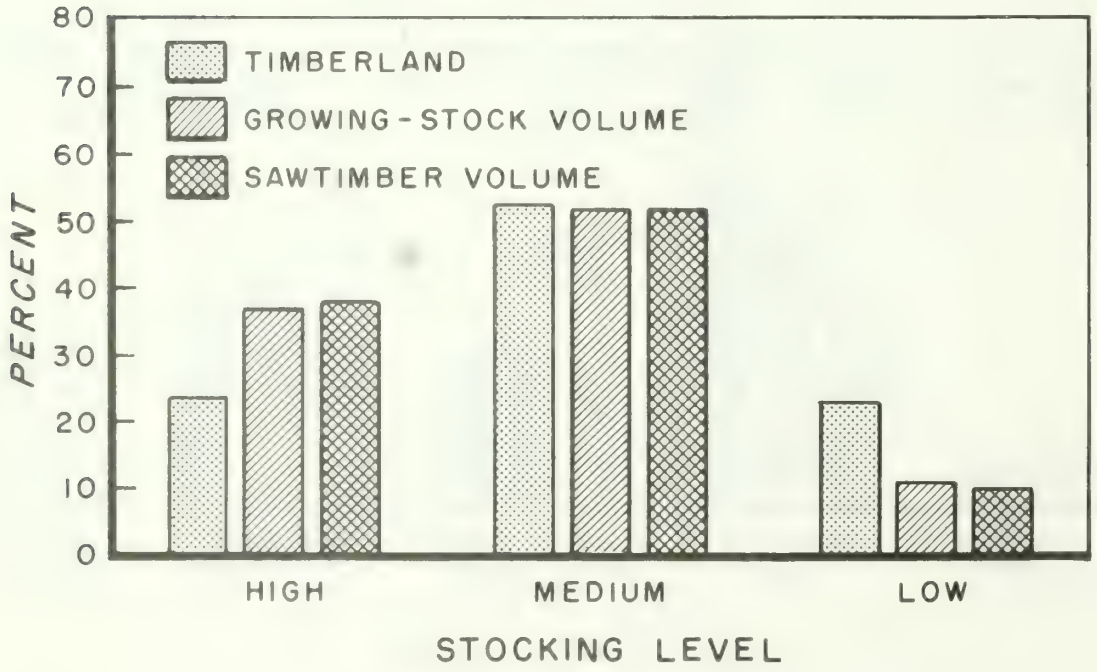


Figure 5.--*Percentage of timberland area, growing-stock volume, and sawtimber volume by stocking level, Midsouth.*

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Table 1.--*Area of timberland by ownership class, site class, and forest class, Midsouth*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 2,617.2 | 168.5 | 1,285.0 | 525.5 | 427.4 | 210.8 |
| | Medium | 2,609.5 | 58.5 | 1,052.9 | 626.2 | 825.7 | 46.4 |
| | Poor | 1,081.2 | 17.2 | 196.7 | 155.4 | 694.7 | 17.2 |
| | All sites | 6,308.0 | 244.2 | 2,534.6 | 1,307.0 | 1,947.7 | 274.5 |
| Other public | High | 1,637.6 | 17.3 | 281.5 | 227.5 | 304.2 | 807.0 |
| | Medium | 1,336.7 | 45.2 | 174.7 | 168.9 | 474.1 | 473.8 |
| | Poor | 510.3 | 6.1 | 46.3 | 63.1 | 347.5 | 47.3 |
| | All sites | 3,484.6 | 68.6 | 502.5 | 459.5 | 1,125.8 | 1,328.1 |
| Forest industry[2] | High | 14,241.4 | 1,930.5 | 4,411.6 | 2,962.7 | 2,443.7 | 2,492.9 |
| | Medium | 7,602.8 | 1,142.5 | 2,198.8 | 1,577.3 | 1,745.7 | 938.6 |
| | Poor | 1,202.8 | 124.2 | 237.4 | 259.1 | 535.6 | 46.5 |
| | All sites | 23,047.0 | 3,197.1 | 6,847.8 | 4,799.0 | 4,725.0 | 3,478.1 |
| Farmer | High | 10,552.1 | 461.5 | 2,101.9 | 1,735.6 | 3,635.7 | 2,617.5 |
| | Medium | 7,736.3 | 191.7 | 1,064.1 | 1,225.1 | 4,186.2 | 1,069.3 |
| | Poor | 2,917.2 | 28.1 | 244.5 | 344.8 | 2,182.0 | 117.8 |
| | All sites | 21,205.6 | 681.3 | 3,410.4 | 3,305.4 | 10,003.9 | 3,804.6 |
| Miscellaneous corporate | High | 3,219.2 | 172.1 | 819.6 | 509.1 | 672.5 | 1,046.0 |
| | Medium | 2,378.6 | 111.6 | 341.5 | 297.9 | 865.1 | 762.4 |
| | Poor | 874.0 | 11.7 | 80.9 | 96.6 | 520.1 | 164.6 |
| | All sites | 6,471.8 | 295.5 | 1,242.0 | 903.6 | 2,057.7 | 1,973.1 |
| Other private | High | 19,048.6 | 1,005.5 | 5,049.5 | 3,786.6 | 5,339.8 | 3,867.1 |
| | Medium | 13,797.8 | 444.0 | 2,814.1 | 2,400.5 | 6,053.5 | 2,085.8 |
| | Poor | 4,934.9 | 29.4 | 464.7 | 608.1 | 3,591.8 | 241.0 |
| | All sites | 37,781.3 | 1,479.0 | 8,328.3 | 6,795.1 | 14,985.0 | 6,193.8 |
| All owners | High | 51,316.1 | 3,755.4 | 13,949.1 | 9,746.9 | 12,823.2 | 11,041.3 |
| | Medium | 35,461.6 | 1,993.6 | 7,646.0 | 6,295.7 | 14,150.2 | 5,376.3 |
| | Poor | 11,520.4 | 216.7 | 1,270.6 | 1,527.0 | 7,871.7 | 634.4 |
| | All sites | 98,298.3 | 5,965.7 | 22,865.7 | 17,569.8 | 34,844.9 | 17,052.1 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 2.--*Area of timberland by ownership class, stocking level, and forest class, Midsouth*[1]

| Ownership class | Stocking level | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 2,124.6 | 80.8 | 1,305.7 | 365.3 | 338.6 | 34.2 |
| | Medium | 3,424.8 | 133.8 | 1,115.0 | 808.6 | 1,216.3 | 151.1 |
| | Low | 758.6 | 29.5 | 113.9 | 133.1 | 392.9 | 89.2 |
| | All levels | 6,308.0 | 244.2 | 2,534.6 | 1,307.0 | 1,947.7 | 274.5 |
| Other public | High | 594.4 | 23.4 | 167.4 | 111.8 | 112.8 | 179.0 |
| | Medium | 1,876.3 | 28.5 | 271.0 | 231.6 | 706.7 | 638.5 |
| | Low | 1,013.9 | 16.8 | 64.2 | 116.1 | 306.2 | 510.7 |
| | All levels | 3,484.6 | 68.6 | 502.5 | 459.5 | 1,125.8 | 1,328.1 |
| Forest industry[2] | High | 7,569.8 | 1,722.0 | 2,963.9 | 1,399.2 | 880.1 | 604.7 |
| | Medium | 11,591.0 | 1,197.6 | 3,447.6 | 2,808.3 | 2,436.3 | 1,701.1 |
| | Low | 3,886.2 | 277.5 | 436.3 | 591.5 | 1,408.7 | 1,172.3 |
| | All levels | 23,047.0 | 3,197.1 | 6,847.8 | 4,799.0 | 4,725.0 | 3,478.1 |
| Farmer | High | 3,931.5 | 293.6 | 1,238.0 | 724.9 | 1,238.7 | 436.2 |
| | Medium | 11,415.9 | 345.1 | 1,755.7 | 1,963.0 | 5,547.5 | 1,804.7 |
| | Low | 5,858.2 | 42.6 | 416.7 | 617.5 | 3,217.7 | 1,563.7 |
| | All levels | 21,205.6 | 681.3 | 3,410.4 | 3,305.4 | 10,003.9 | 3,804.6 |
| Miscellaneous corporate | High | 1,613.3 | 160.4 | 574.3 | 224.6 | 257.4 | 396.5 |
| | Medium | 3,123.4 | 101.0 | 556.6 | 481.7 | 1,186.1 | 798.1 |
| | Low | 1,735.1 | 34.1 | 111.1 | 197.3 | 614.2 | 778.5 |
| | All levels | 6,471.8 | 295.5 | 1,242.0 | 903.6 | 2,057.7 | 1,973.1 |
| Other private | High | 8,058.2 | 739.1 | 3,251.9 | 1,362.2 | 1,874.0 | 831.0 |
| | Medium | 20,243.9 | 597.4 | 4,225.3 | 4,141.8 | 8,297.4 | 2,981.9 |
| | Low | 9,479.2 | 142.4 | 851.1 | 1,291.1 | 4,813.6 | 2,381.0 |
| | All levels | 37,781.3 | 1,479.0 | 8,328.3 | 6,795.1 | 14,985.0 | 6,193.8 |
| All owners | High | 23,891.7 | 3,019.4 | 9,501.2 | 4,188.0 | 4,701.6 | 2,481.4 |
| | Medium | 51,675.2 | 2,403.4 | 11,371.1 | 10,435.1 | 19,390.3 | 8,075.3 |
| | Low | 22,731.3 | 542.9 | 1,993.3 | 2,946.5 | 10,753.2 | 6,495.3 |
| | All levels | 98,298.3 | 5,965.7 | 22,865.7 | 17,569.8 | 34,844.9 | 17,052.1 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 3.--*Volume of softwood growing stock by ownership class, site class, and forest class, Midsouth*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 3,483.4 | 194.6 | 2,601.0 | 524.4 | 104.6 | 58.7 |
| | Medium | 2,104.4 | 40.1 | 1,624.3 | 349.9 | 90.1 | ... |
| | Poor | 293.5 | 8.9 | 180.0 | 71.5 | 32.8 | 0.4 |
| | All sites | 5,881.3 | 243.5 | 4,405.3 | 945.9 | 227.5 | 59.1 |
| Other public | High | 853.4 | 25.3 | 511.4 | 177.9 | 46.7 | 92.0 |
| | Medium | 389.5 | 23.7 | 159.8 | 92.5 | 55.0 | 58.5 |
| | Poor | 52.1 | 3.5 | 15.4 | 14.9 | 6.9 | 11.4 |
| | All sites | 1,294.9 | 52.5 | 686.6 | 285.3 | 108.6 | 161.9 |
| Forest industry[2] | High | 11,386.6 | 1,695.1 | 6,606.8 | 2,181.0 | 461.4 | 442.3 |
| | Medium | 3,793.9 | 474.4 | 2,163.3 | 815.9 | 180.9 | 159.4 |
| | Poor | 303.7 | 29.6 | 150.4 | 74.7 | 34.5 | 14.4 |
| | All sites | 15,484.1 | 2,199.1 | 8,920.6 | 3,071.7 | 676.7 | 616.1 |
| Farmer | High | 5,187.9 | 567.2 | 2,842.2 | 1,171.8 | 367.3 | 239.5 |
| | Medium | 1,821.2 | 148.3 | 900.8 | 454.0 | 221.9 | 96.3 |
| | Poor | 266.2 | 8.4 | 109.5 | 81.4 | 47.4 | 19.5 |
| | All sites | 7,275.3 | 723.9 | 3,852.5 | 1,707.1 | 636.6 | 355.2 |
| Miscellaneous corporate | High | 2,370.2 | 244.3 | 1,397.0 | 332.3 | 91.8 | 304.7 |
| | Medium | 931.2 | 52.0 | 317.4 | 135.1 | 62.1 | 364.7 |
| | Poor | 153.2 | 14.3 | 44.8 | 28.7 | 17.5 | 47.9 |
| | All sites | 3,454.5 | 310.6 | 1,759.1 | 496.1 | 171.5 | 717.3 |
| Other private | High | 12,404.5 | 1,236.1 | 7,440.1 | 2,527.5 | 767.4 | 433.3 |
| | Medium | 4,556.3 | 335.0 | 2,271.9 | 1,059.4 | 415.3 | 474.6 |
| | Poor | 530.6 | 6.9 | 176.1 | 184.0 | 87.8 | 75.8 |
| | All sites | 17,491.3 | 1,578.1 | 9,888.2 | 3,770.9 | 1,270.5 | 983.7 |
| All owners | High | 35,685.9 | 3,962.7 | 21,398.6 | 6,915.0 | 1,839.2 | 1,570.5 |
| | Medium | 13,596.4 | 1,073.5 | 7,437.6 | 2,906.7 | 1,025.3 | 1,153.5 |
| | Poor | 1,599.3 | 71.7 | 676.2 | 455.3 | 226.9 | 169.3 |
| | All sites | 50,881.7 | 5,107.8 | 29,512.3 | 10,276.9 | 3,091.4 | 2,893.2 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 4.--*Volume of hardwood growing stock by ownership class, site class, and forest class, Midsouth*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million board feet* | | | | | |
| National forest | High | 1,349.8 | 9.7 | 280.4 | 321.7 | 458.5 | 279.5 |
| | Medium | 1,149.0 | 0.8 | 155.7 | 205.3 | 743.8 | 43.3 |
| | Poor | 667.4 | ... | 15.4 | 62.3 | 575.3 | 14.3 |
| | All sites | 3,166.2 | 10.5 | 451.5 | 589.3 | 1,777.7 | 337.2 |
| Other public | High | 1,536.6 | 1.3 | 68.6 | 130.4 | 310.4 | 1,025.9 |
| | Medium | 805.0 | 2.2 | 21.1 | 59.3 | 358.0 | 364.3 |
| | Poor | 207.2 | 1.9 | 1.4 | 11.3 | 155.0 | 37.5 |
| | All sites | 2,548.8 | 5.4 | 91.2 | 200.9 | 823.5 | 1,427.7 |
| Forest industry[2] | High | 6,830.8 | 60.6 | 735.9 | 1,252.1 | 1,567.3 | 3,214.9 |
| | Medium | 2,666.7 | 27.5 | 216.5 | 448.3 | 913.2 | 1,061.3 |
| | Poor | 314.1 | 0.4 | 13.2 | 33.6 | 249.7 | 17.2 |
| | All sites | 9,811.7 | 88.5 | 965.5 | 1,734.0 | 2,730.3 | 4,293.4 |
| Farmer | High | 7,065.8 | 42.2 | 396.6 | 839.3 | 3,010.6 | 2,777.1 |
| | Medium | 4,216.0 | 13.1 | 124.3 | 352.2 | 2,958.2 | 768.2 |
| | Poor | 1,265.9 | ... | 28.3 | 85.2 | 1,043.5 | 109.0 |
| | All sites | 12,547.7 | 55.3 | 549.2 | 1,276.6 | 7,012.3 | 3,654.3 |
| Miscellaneous corporate | High | 2,165.8 | 7.4 | 165.1 | 246.1 | 497.3 | 1,250.1 |
| | Medium | 1,438.5 | 0.7 | 26.7 | 102.4 | 598.7 | 710.1 |
| | Poor | 339.5 | ... | 9.3 | 16.7 | 273.9 | 39.7 |
| | All sites | 3,943.8 | 8.0 | 201.0 | 365.1 | 1,369.8 | 1,999.8 |
| Other private | High | 11,352.2 | 91.2 | 990.3 | 1,701.1 | 4,230.7 | 4,339.0 |
| | Medium | 6,651.7 | 17.2 | 297.2 | 719.0 | 3,884.4 | 1,733.8 |
| | Poor | 1,852.2 | 1.3 | 28.5 | 131.7 | 1,543.5 | 147.1 |
| | All sites | 19,856.1 | 109.7 | 1,316.1 | 2,551.8 | 9,658.6 | 6,219.9 |
| All owners | High | 30,301.1 | 212.4 | 2,637.0 | 4,490.5 | 10,074.7 | 12,886.4 |
| | Medium | 16,926.8 | 61.4 | 841.5 | 1,886.4 | 9,456.4 | 4,681.1 |
| | Poor | 4,646.3 | 3.6 | 96.0 | 340.9 | 3,841.0 | 364.8 |
| | All sites | 51,874.3 | 277.5 | 3,574.5 | 6,717.8 | 23,372.2 | 17,932.3 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 5.--*Area of timberland by ownership class, site class, and forest class, Alabama, 1982*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 339.3 | 5.2 | 133.7 | 104.1 | 90.2 | 6.2 |
| | Medium | 274.9 | 5.7 | 93.4 | 114.8 | 61.0 | ... |
| | Poor | 74.3 | 11.3 | 29.1 | 5.6 | 28.3 | ... |
| | All sites | 688.6 | 22.2 | 256.2 | 224.6 | 179.5 | 6.2 |
| Other public | High | 270.9 | ... | 58.4 | 63.0 | 52.1 | 97.4 |
| | Medium | 175.3 | 16.0 | 24.3 | 37.6 | 86.2 | 11.2 |
| | Poor | 25.4 | ... | 6.0 | 6.2 | 13.3 | ... |
| | All sites | 471.7 | 16.0 | 88.6 | 106.8 | 151.6 | 108.6 |
| Forest industry[2] | High | 3,181.6 | 620.8 | 834.9 | 678.2 | 659.2 | 388.5 |
| | Medium | 1,688.2 | 437.9 | 385.3 | 341.5 | 387.3 | 136.2 |
| | Poor | 247.0 | 45.3 | 58.2 | 38.2 | 87.0 | 18.2 |
| | All sites | 5,116.8 | 1,104.0 | 1,278.5 | 1,057.9 | 1,133.6 | 542.9 |
| Farmer | High | 3,656.1 | 198.1 | 840.9 | 654.6 | 1,279.3 | 683.2 |
| | Medium | 1,875.2 | 70.0 | 303.3 | 384.9 | 925.2 | 191.9 |
| | Poor | 242.0 | 5.6 | 49.9 | 80.2 | 89.1 | 17.2 |
| | All sites | 5,773.3 | 273.6 | 1,194.1 | 1,119.8 | 2,293.6 | 892.3 |
| Miscellaneous corporate | High | 990.6 | 39.7 | 317.8 | 244.0 | 315.2 | 74.1 |
| | Medium | 525.9 | 68.5 | 87.1 | 95.7 | 251.1 | 23.6 |
| | Poor | 119.8 | ... | 54.6 | 28.6 | 36.5 | ... |
| | All sites | 1,636.3 | 108.1 | 459.5 | 368.3 | 602.8 | 97.7 |
| Other private | High | 4,789.9 | 326.5 | 1,239.1 | 1,025.7 | 1,613.6 | 585.0 |
| | Medium | 2,724.2 | 151.7 | 712.4 | 580.3 | 1,087.5 | 192.3 |
| | Poor | 457.9 | 6.0 | 123.7 | 79.6 | 219.9 | 28.8 |
| | All sites | 7,972.0 | 484.2 | 2,075.2 | 1,685.6 | 2,921.0 | 806.1 |
| All owners | High | 13,228.4 | 1,190.2 | 3,424.8 | 2,769.5 | 4,009.6 | 1,834.3 |
| | Medium | 7,263.8 | 749.8 | 1,605.7 | 1,554.9 | 2,798.3 | 555.2 |
| | Poor | 1,166.5 | 68.1 | 321.5 | 238.4 | 474.2 | 64.2 |
| | All sites | 21,658.8 | 2,008.1 | 5,352.0 | 4,562.9 | 7,282.1 | 2,453.7 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 6.--*Area of timberland by ownership class, stocking level, and forest class, Alabama, 1982*[1]

| Ownership class | Stocking level | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 220.2 | 10.9 | 100.0 | 52.8 | 50.2 | 6.2 |
| | Medium | 366.3 | 5.7 | 115.3 | 142.8 | 102.4 | ... |
| | Low | 102.2 | 5.5 | 40.8 | 28.9 | 26.9 | ... |
| | All levels | 688.6 | 22.2 | 256.2 | 224.6 | 179.5 | 6.2 |
| Other public | High | 129.8 | 10.5 | 35.8 | 23.7 | 36.5 | 23.2 |
| | Medium | 195.4 | ... | 40.7 | 16.9 | 81.9 | 56.0 |
| | Low | 146.4 | 5.4 | 12.2 | 66.2 | 33.2 | 29.4 |
| | All levels | 471.7 | 16.0 | 88.6 | 106.8 | 151.6 | 108.6 |
| Forest industry[2] | High | 2,119.1 | 630.1 | 573.8 | 432.5 | 287.7 | 195.0 |
| | Medium | 2,136.8 | 384.7 | 581.4 | 496.8 | 478.9 | 195.0 |
| | Low | 860.9 | 89.2 | 123.3 | 128.6 | 367.0 | 152.9 |
| | All levels | 5,116.8 | 1,104.0 | 1,278.5 | 1,057.9 | 1,133.6 | 542.9 |
| Farmer | High | 1,353.8 | 108.9 | 378.3 | 291.2 | 427.7 | 147.7 |
| | Medium | 2,959.6 | 140.7 | 626.0 | 542.3 | 1,292.8 | 357.8 |
| | Low | 1,460.0 | 24.1 | 189.7 | 286.3 | 573.2 | 386.7 |
| | All levels | 5,773.3 | 273.6 | 1,194.1 | 1,119.8 | 2,293.6 | 892.3 |
| Miscellaneous corporate | High | 480.2 | 62.7 | 202.7 | 81.2 | 110.3 | 23.4 |
| | Medium | 772.4 | 28.1 | 185.8 | 206.0 | 318.2 | 34.3 |
| | Low | 383.7 | 17.4 | 71.0 | 81.1 | 174.2 | 40.0 |
| | All levels | 1,636.3 | 108.1 | 459.5 | 368.3 | 602.8 | 97.7 |
| Other private | High | 2,203.1 | 225.0 | 846.2 | 399.7 | 560.0 | 172.2 |
| | Medium | 4,011.8 | 183.3 | 937.4 | 951.7 | 1,554.9 | 384.4 |
| | Low | 1,757.1 | 75.8 | 291.6 | 334.2 | 806.1 | 249.4 |
| | All levels | 7,972.0 | 484.2 | 2,075.2 | 1,685.6 | 2,921.0 | 806.1 |
| All owners | High | 6,506.1 | 1,048.1 | 2,136.8 | 1,281.1 | 1,472.3 | 567.7 |
| | Medium | 10,442.4 | 742.5 | 2,486.6 | 2,356.5 | 3,829.2 | 1,027.5 |
| | Low | 4,710.3 | 217.5 | 728.5 | 925.3 | 1,980.6 | 858.4 |
| | All levels | 21,658.8 | 2,008.1 | 5,352.0 | 4,562.9 | 7,282.1 | 2,453.7 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 7.--*Volume of softwood growing stock by ownership class, site class, and forest class, Alabama, 1982*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 381.8 | 1.5 | 256.4 | 86.3 | 31.8 | 5.8 |
| | Medium | 202.2 | 1.3 | 136.4 | 54.7 | 9.8 | ... |
| | Poor | 35.4 | ... | 32.4 | 3.0 | ... | ... |
| | All sites | 619.3 | 2.8 | 425.2 | 144.0 | 41.5 | 5.8 |
| Other public | High | 174.4 | ... | 98.1 | 44.6 | 12.9 | 18.8 |
| | Medium | 43.2 | ... | 20.8 | 13.5 | 8.9 | ... |
| | Poor | 3.3 | ... | 0.8 | 2.0 | 0.4 | ... |
| | All sites | 220.9 | ... | 119.7 | 60.1 | 22.3 | 18.8 |
| Forest industry[2] | High | 2,275.7 | 464.9 | 1,204.2 | 429.1 | 110.9 | 66.7 |
| | Medium | 781.3 | 176.8 | 350.8 | 164.8 | 44.9 | 44.0 |
| | Poor | 65.1 | 15.9 | 30.4 | 8.1 | 7.0 | 3.6 |
| | All sites | 3,122.2 | 657.7 | 1,585.4 | 602.0 | 162.7 | 114.4 |
| Farmer | High | 2,169.9 | 267.8 | 1,173.7 | 489.1 | 172.6 | 66.7 |
| | Medium | 575.0 | 35.3 | 277.9 | 161.5 | 88.3 | 11.9 |
| | Poor | 38.5 | ... | 17.7 | 17.5 | 1.9 | 1.4 |
| | All sites | 2,783.5 | 303.2 | 1,469.3 | 668.1 | 262.9 | 80.0 |
| Miscellaneous corporate | High | 696.8 | 21.3 | 482.2 | 137.6 | 48.5 | 7.2 |
| | Medium | 165.4 | 16.4 | 85.5 | 35.7 | 23.6 | 4.3 |
| | Poor | 34.1 | ... | 27.1 | 6.9 | ... | ... |
| | All sites | 896.3 | 37.6 | 594.8 | 180.2 | 72.1 | 11.5 |
| Other private | High | 2,846.4 | 321.8 | 1,632.1 | 619.0 | 214.5 | 59.0 |
| | Medium | 1,071.5 | 89.1 | 577.7 | 266.6 | 100.7 | 37.4 |
| | Poor | 95.7 | ... | 53.2 | 29.0 | 12.4 | 1.1 |
| | All sites | 4,013.6 | 410.9 | 2,263.0 | 914.6 | 327.6 | 97.6 |
| All owners | High | 8,545.0 | 1,077.3 | 4,846.5 | 1,805.7 | 591.2 | 224.2 |
| | Medium | 2,838.6 | 318.8 | 1,449.2 | 696.8 | 276.2 | 97.6 |
| | Poor | 272.0 | 15.9 | 161.8 | 66.5 | 21.6 | 6.2 |
| | All sites | 11,655.7 | 1,412.1 | 6,457.4 | 2,569.0 | 889.1 | 328.1 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 8.--*Volume of hardwood growing stock by ownership class, site class, and forest class, Alabama, 1982*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 196.9 | 1.6 | 30.3 | 48.2 | 108.6 | 8.3 |
| | Medium | 74.7 | ... | 4.9 | 33.5 | 36.3 | ... |
| | Poor | 18.4 | ... | 1.9 | ... | 16.5 | ... |
| | All sites | 290.0 | 1.6 | 37.1 | 81.7 | 161.3 | 8.3 |
| Other public | High | 203.7 | ... | 15.2 | 23.5 | 49.6 | 115.4 |
| | Medium | 85.5 | ... | ... | 5.2 | 76.8 | 3.5 |
| | Poor | 9.3 | ... | ... | 1.0 | 8.3 | ... |
| | All sites | 298.4 | ... | 15.2 | 29.7 | 134.6 | 118.9 |
| Forest industry[2] | High | 1,275.7 | 17.4 | 145.6 | 213.7 | 387.5 | 511.5 |
| | Medium | 576.0 | 11.7 | 33.9 | 105.1 | 193.2 | 232.0 |
| | Poor | 41.0 | 0.4 | 2.2 | 3.3 | 23.4 | 11.7 |
| | All sites | 1,892.6 | 29.6 | 181.6 | 322.1 | 604.1 | 755.2 |
| Farmer | High | 2,194.5 | 18.2 | 142.0 | 322.8 | 946.8 | 764.6 |
| | Medium | 921.0 | 5.1 | 22.9 | 113.9 | 607.1 | 172.0 |
| | Poor | 85.1 | ... | 3.6 | 20.8 | 49.0 | 11.7 |
| | All sites | 3,200.6 | 23.4 | 168.5 | 457.6 | 1,602.9 | 948.3 |
| Miscellaneous corporate | High | 434.4 | 3.0 | 58.0 | 87.2 | 188.3 | 97.9 |
| | Medium | 235.3 | ... | 9.4 | 31.3 | 160.6 | 33.9 |
| | Poor | 22.6 | ... | 4.4 | 1.3 | 16.8 | ... |
| | All sites | 692.3 | 3.0 | 71.8 | 119.8 | 365.8 | 131.8 |
| Other private | High | 2,516.4 | 21.6 | 245.6 | 378.3 | 1,138.4 | 732.5 |
| | Medium | 1,028.0 | 6.0 | 65.4 | 166.9 | 595.4 | 194.3 |
| | Poor | 131.9 | ... | 1.6 | 9.8 | 106.3 | 14.2 |
| | All sites | 3,676.3 | 27.6 | 312.7 | 554.9 | 1,840.1 | 941.0 |
| All owners | High | 6,821.6 | 61.8 | 636.7 | 1,073.8 | 2,819.2 | 2,230.1 |
| | Medium | 2,920.4 | 22.9 | 136.6 | 455.9 | 1,669.4 | 635.7 |
| | Poor | 308.2 | 0.4 | 13.7 | 36.2 | 220.3 | 37.6 |
| | All sites | 10,050.2 | 85.1 | 786.9 | 1,565.9 | 4,708.9 | 2,903.4 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 9.--*Area of timberland by ownership class, site class, and forest class, Arkansas, 1978*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 242.5 | 5.9 | 114.8 | 58.1 | 63.6 | ... |
| | Medium | 1,315.7 | 5.9 | 527.0 | 285.9 | 485.9 | 11.1 |
| | Poor | 753.5 | 5.9 | 110.8 | 110.4 | 526.3 | ... |
| | All sites | 2,311.6 | 17.7 | 752.6 | 454.4 | 1,075.8 | 11.1 |
| Other public | High | 262.9 | ... | 22.3 | 10.6 | 23.0 | 207.0 |
| | Medium | 279.9 | 5.9 | 11.4 | 23.1 | 74.1 | 165.4 |
| | Poor | 132.2 | ... | ... | 11.5 | 105.2 | 15.5 |
| | All sites | 675.0 | 5.9 | 33.7 | 45.1 | 202.4 | 387.9 |
| Forest industry[2] | High | 2,508.3 | 98.1 | 1,023.2 | 438.8 | 324.0 | 624.2 |
| | Medium | 1,442.2 | 93.1 | 547.6 | 429.3 | 217.1 | 155.0 |
| | Poor | 281.0 | 10.4 | 55.8 | 73.9 | 135.7 | 5.2 |
| | All sites | 4,231.4 | 201.6 | 1,626.6 | 942.0 | 676.9 | 784.4 |
| Farmer | High | 873.5 | 50.3 | 178.6 | 146.0 | 126.7 | 372.0 |
| | Medium | 1,123.6 | 17.0 | 164.1 | 140.0 | 573.0 | 229.4 |
| | Poor | 950.0 | 5.5 | 34.9 | 114.9 | 768.9 | 26.0 |
| | All sites | 2,947.1 | 72.8 | 377.6 | 400.8 | 1,468.6 | 627.3 |
| Miscellaneous corporate | High | 230.4 | ... | 71.5 | 22.6 | 16.0 | 120.3 |
| | Medium | 213.1 | ... | 40.8 | 42.5 | 88.6 | 41.2 |
| | Poor | 260.9 | 5.5 | 10.9 | 28.2 | 203.1 | 13.2 |
| | All sites | 704.3 | 5.5 | 123.2 | 93.3 | 307.7 | 174.7 |
| Other private | High | 2,048.6 | 102.0 | 508.0 | 429.2 | 457.5 | 551.9 |
| | Medium | 2,127.0 | 32.4 | 337.0 | 390.9 | 1,093.6 | 273.3 |
| | Poor | 1,550.4 | ... | 74.8 | 207.1 | 1,249.1 | 19.5 |
| | All sites | 5,726.0 | 134.4 | 919.8 | 1,027.2 | 2,800.1 | 844.6 |
| All owners | High | 6,166.1 | 256.2 | 1,918.5 | 1,105.2 | 1,010.9 | 1,875.3 |
| | Medium | 6,501.5 | 154.3 | 1,627.9 | 1,311.7 | 2,532.3 | 875.2 |
| | Poor | 3,928.0 | 27.2 | 287.2 | 545.9 | 2,988.2 | 79.4 |
| | All sites | 16,595.5 | 437.8 | 3,833.6 | 2,962.8 | 6,531.4 | 2,830.0 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 10.--*Area of timberland by ownership class, stocking level, and forest class, Arkansas, 1978*[1]

| Ownership class | Stocking level | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 732.6 | 5.9 | 435.0 | 121.9 | 169.9 | ... |
| | Medium | 1,320.0 | 11.8 | 317.6 | 304.0 | 686.6 | ... |
| | Low | 259.0 | ... | ... | 28.6 | 219.3 | 11.1 |
| | All levels | 2,311.6 | 17.7 | 752.6 | 454.4 | 1,075.8 | 11.1 |
| Other public | High | 109.2 | ... | 16.4 | 22.7 | 11.7 | 58.4 |
| | Medium | 383.4 | 5.9 | 11.4 | 17.1 | 135.1 | 213.9 |
| | Low | 182.3 | ... | 5.9 | 5.4 | 55.5 | 115.6 |
| | All levels | 675.0 | 5.9 | 33.7 | 45.1 | 202.4 | 387.9 |
| Forest industry[2] | High | 1,607.7 | 140.3 | 849.2 | 296.6 | 163.8 | 157.9 |
| | Medium | 2,127.8 | 61.3 | 720.6 | 579.1 | 354.7 | 412.1 |
| | Low | 495.9 | ... | 56.8 | 66.4 | 158.4 | 214.3 |
| | All levels | 4,231.4 | 201.6 | 1,626.6 | 942.0 | 676.9 | 784.4 |
| Farmer | High | 528.7 | 39.1 | 172.5 | 73.0 | 171.9 | 72.1 |
| | Medium | 1,674.7 | 33.6 | 160.1 | 300.2 | 838.6 | 342.2 |
| | Low | 743.8 | ... | 45.1 | 27.6 | 458.0 | 213.1 |
| | All levels | 2,947.1 | 72.8 | 377.6 | 400.8 | 1,468.6 | 627.3 |
| Miscellaneous corporate | High | 146.2 | ... | 59.3 | 16.6 | 54.8 | 15.5 |
| | Medium | 412.9 | 5.5 | 58.5 | 71.3 | 169.6 | 108.0 |
| | Low | 145.3 | ... | 5.4 | 5.4 | 83.3 | 51.2 |
| | All levels | 704.3 | 5.5 | 123.2 | 93.3 | 307.7 | 174.7 |
| Other private | High | 1,194.3 | 95.3 | 432.9 | 250.7 | 333.5 | 81.8 |
| | Medium | 3,433.9 | 39.1 | 452.2 | 659.3 | 1,790.9 | 492.5 |
| | Low | 1,097.9 | ... | 34.7 | 117.2 | 675.6 | 270.4 |
| | All levels | 5,726.0 | 134.4 | 919.8 | 1,027.2 | 2,800.1 | 844.6 |
| All owners | High | 4,318.6 | 280.6 | 1,965.3 | 781.4 | 905.6 | 385.7 |
| | Medium | 9,352.8 | 157.2 | 1,720.5 | 1,930.9 | 3,975.6 | 1,568.6 |
| | Low | 2,924.1 | ... | 147.8 | 250.5 | 1,650.2 | 875.6 |
| | All levels | 16,595.5 | 437.8 | 3,833.6 | 2,962.8 | 6,531.4 | 2,830.0 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 11.--*Volume of softwood growing stock by ownership class, site class, and forest class, Arkansas, 1978*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 274.8 | 8.4 | 202.5 | 58.1 | 5.7 | ... |
| | Medium | 1,083.9 | 13.6 | 841.8 | 184.8 | 43.8 | ... |
| | Poor | 187.5 | 8.9 | 110.7 | 44.4 | 23.5 | ... |
| | All sites | 1,546.1 | 30.9 | 1,154.9 | 287.3 | 73.0 | ... |
| Other public | High | 80.9 | ... | 55.3 | 8.6 | 2.6 | 14.4 |
| | Medium | 85.5 | 9.5 | 13.5 | 25.6 | 7.7 | 29.1 |
| | Poor | 10.7 | ... | ... | 2.3 | 3.0 | 5.5 |
| | All sites | 177.1 | 9.5 | 68.8 | 36.5 | 13.3 | 49.0 |
| Forest industry[2] | High | 2,155.4 | 72.1 | 1,575.3 | 321.4 | 87.8 | 98.8 |
| | Medium | 935.0 | 35.0 | 594.9 | 250.8 | 32.3 | 22.1 |
| | Poor | 91.3 | 1.0 | 41.6 | 32.2 | 16.6 | ... |
| | All sites | 3,181.8 | 108.1 | 2,211.8 | 604.4 | 136.6 | 120.8 |
| Farmer | High | 475.6 | 45.6 | 260.1 | 107.2 | 21.5 | 41.1 |
| | Medium | 254.9 | 13.2 | 141.9 | 47.8 | 25.4 | 26.7 |
| | Poor | 65.8 | 3.2 | 12.8 | 31.9 | 15.7 | 2.2 |
| | All sites | 796.4 | 62.1 | 414.8 | 186.9 | 62.5 | 70.0 |
| Miscellaneous corporate | High | 197.9 | ... | 154.3 | 10.8 | 5.6 | 27.2 |
| | Medium | 75.6 | ... | 43.1 | 28.1 | 4.4 | ... |
| | Poor | 32.2 | 1.5 | 13.9 | 11.9 | 4.9 | ... |
| | All sites | 305.7 | 1.5 | 211.4 | 50.7 | 14.9 | 27.2 |
| Other private | High | 1,400.1 | 153.8 | 776.7 | 347.7 | 91.3 | 30.6 |
| | Medium | 626.1 | 45.5 | 293.4 | 196.1 | 72.6 | 18.5 |
| | Poor | 133.6 | ... | 32.7 | 68.1 | 32.9 | ... |
| | All sites | 2,159.9 | 199.3 | 1,102.8 | 611.8 | 196.8 | 49.1 |
| All owners | High | 4,584.7 | 280.0 | 3,024.2 | 853.8 | 214.5 | 212.2 |
| | Medium | 3,061.1 | 116.8 | 1,928.6 | 733.3 | 186.1 | 96.3 |
| | Poor | 521.2 | 14.6 | 211.6 | 190.7 | 96.6 | 7.7 |
| | All sites | 8,166.9 | 411.4 | 5,164.4 | 1,777.7 | 497.2 | 316.2 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 12.--*Volume of hardwood growing stock by ownership class, site class, and forest class, Arkansas, 1978*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 111.6 | 1.0 | 20.9 | 30.8 | 58.9 | ... |
| | Medium | 635.2 | 0.4 | 86.3 | 97.4 | 442.6 | 8.4 |
| | Poor | 508.3 | ... | 9.6 | 40.4 | 458.2 | ... |
| | All sites | 1,255.1 | 1.4 | 116.9 | 168.6 | 959.8 | 8.4 |
| Other public | High | 295.4 | ... | 2.2 | 5.9 | 15.9 | 271.3 |
| | Medium | 205.6 | 1.4 | 1.9 | 8.7 | 48.9 | 144.6 |
| | Poor | 48.8 | ... | ... | 3.3 | 34.8 | 10.7 |
| | All sites | 549.7 | 1.4 | 4.1 | 18.0 | 99.6 | 426.6 |
| Forest industry[2] | High | 1,521.8 | 3.8 | 176.5 | 204.7 | 234.5 | 902.3 |
| | Medium | 449.8 | 0.6 | 70.9 | 129.1 | 70.9 | 178.3 |
| | Poor | 65.1 | ... | 3.6 | 15.6 | 43.9 | 2.0 |
| | All sites | 2,036.6 | 4.3 | 251.0 | 349.4 | 349.3 | 1,082.6 |
| Farmer | High | 567.8 | 6.5 | 35.3 | 75.3 | 94.6 | 355.9 |
| | Medium | 591.0 | 1.3 | 27.7 | 54.0 | 345.0 | 162.9 |
| | Poor | 395.0 | ... | 2.1 | 34.5 | 335.4 | 23.1 |
| | All sites | 1,553.7 | 7.8 | 65.1 | 163.9 | 774.9 | 542.0 |
| Miscellaneous corporate | High | 173.8 | ... | 21.7 | 9.6 | 19.4 | 123.1 |
| | Medium | 128.5 | ... | 5.4 | 16.3 | 63.9 | 42.9 |
| | Poor | 108.1 | ... | 1.4 | 6.4 | 92.5 | 7.7 |
| | All sites | 410.4 | ... | 28.6 | 32.3 | 175.9 | 173.6 |
| Other private | High | 1,470.1 | 12.2 | 130.8 | 234.8 | 435.4 | 656.9 |
| | Medium | 1,139.8 | 3.1 | 52.0 | 147.7 | 710.5 | 226.5 |
| | Poor | 653.7 | ... | 11.2 | 54.6 | 571.5 | 16.4 |
| | All sites | 3,263.6 | 15.3 | 194.0 | 437.1 | 1,717.5 | 899.7 |
| All owners | High | 4,140.3 | 23.5 | 387.5 | 561.0 | 858.8 | 2,309.5 |
| | Medium | 3,149.8 | 6.8 | 244.2 | 453.3 | 1,681.9 | 763.6 |
| | Poor | 1,779.0 | ... | 27.9 | 154.9 | 1,536.3 | 59.9 |
| | All sites | 9,069.1 | 30.3 | 659.6 | 1,169.2 | 4,076.9 | 3,133.0 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 13.--*Area of timberland by ownership class, site class, and forest class, Louisiana, 1984*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 517.5 | 79.2 | 217.1 | 93.6 | 80.4 | 47.3 |
| | Medium | 92.4 | ... | 51.2 | 17.4 | 17.4 | 6.3 |
| | Poor | 11.1 | ... | 5.5 | ... | ... | 5.5 |
| | All sites | 620.9 | 79.2 | 273.8 | 111.0 | 97.8 | 59.1 |
| Other public | High | 465.1 | ... | 97.4 | 43.4 | 17.9 | 306.5 |
| | Medium | 211.9 | ... | 17.3 | 6.0 | 6.0 | 182.7 |
| | Poor | 32.8 | ... | 6.6 | ... | ... | 26.2 |
| | All sites | 709.8 | ... | 121.2 | 49.3 | 23.9 | 515.4 |
| Forest industry[2] | High | 3,406.0 | 716.8 | 950.0 | 655.2 | 570.2 | 513.8 |
| | Medium | 823.1 | 165.1 | 176.5 | 77.2 | 198.5 | 205.8 |
| | Poor | 40.9 | 17.6 | 5.8 | ... | ... | 17.4 |
| | All sites | 4,269.9 | 899.5 | 1,132.3 | 732.3 | 768.7 | 737.0 |
| Farmer | High | 701.6 | 31.0 | 151.1 | 77.8 | 165.7 | 276.0 |
| | Medium | 188.6 | 5.5 | 23.7 | 5.8 | 23.4 | 130.3 |
| | Poor | 15.8 | ... | ... | ... | ... | 15.8 |
| | All sites | 906.0 | 36.5 | 174.8 | 83.6 | 189.0 | 422.2 |
| Miscellaneous corporate | High | 1,327.3 | 120.2 | 303.1 | 137.4 | 71.7 | 694.9 |
| | Medium | 722.5 | 17.5 | 64.0 | 11.9 | 27.7 | 601.4 |
| | Poor | 147.1 | 6.3 | ... | ... | 5.8 | 135.0 |
| | All sites | 2,196.9 | 144.0 | 367.1 | 149.3 | 105.2 | 1,431.3 |
| Other private | High | 4,022.7 | 282.6 | 1,251.9 | 695.2 | 776.5 | 1,016.5 |
| | Medium | 1,011.1 | 23.5 | 150.4 | 98.1 | 192.0 | 547.2 |
| | Poor | 135.3 | 5.5 | 24.0 | ... | 17.6 | 88.1 |
| | All sites | 5,169.0 | 311.6 | 1,426.3 | 793.3 | 986.1 | 1,651.7 |
| All owners | High | 10,440.1 | 1,229.8 | 2,970.6 | 1,702.5 | 1,682.3 | 2,854.9 |
| | Medium | 3,049.5 | 211.5 | 483.1 | 216.3 | 464.9 | 1,673.7 |
| | Poor | 382.9 | 29.4 | 42.0 | ... | 23.4 | 288.1 |
| | All sites | 13,872.7 | 1,470.8 | 3,495.6 | 1,918.8 | 2,170.7 | 4,816.7 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 14.--*Area of timberland by ownership class, stocking level, and forest class, Louisiana, 1984*[1]

| Ownership class | Stocking level | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 200.6 | 33.6 | 100.4 | 42.8 | 11.7 | 12.1 |
| | Medium | 310.6 | 34.2 | 138.9 | 51.5 | 74.2 | 11.7 |
| | Low | 109.7 | 11.4 | 34.5 | 16.7 | 11.9 | 35.3 |
| | All levels | 620.9 | 79.2 | 273.8 | 111.0 | 97.8 | 59.1 |
| Other public | High | 104.2 | ... | 51.6 | 5.8 | ... | 46.9 |
| | Medium | 301.9 | ... | 40.5 | 43.5 | ... | 217.9 |
| | Low | 303.7 | ... | 29.2 | ... | 23.9 | 250.6 |
| | All levels | 709.8 | ... | 121.2 | 49.3 | 23.9 | 515.4 |
| Forest industry[2] | High | 1,353.8 | 437.2 | 485.0 | 199.1 | 124.6 | 107.9 |
| | Medium | 1,886.4 | 337.3 | 561.2 | 422.5 | 250.2 | 315.2 |
| | Low | 1,029.7 | 125.0 | 86.1 | 110.7 | 393.8 | 314.0 |
| | All levels | 4,269.9 | 899.5 | 1,132.3 | 732.3 | 768.7 | 737.0 |
| Farmer | High | 215.2 | 36.5 | 79.1 | 17.7 | 30.0 | 51.9 |
| | Medium | 365.1 | ... | 78.2 | 34.7 | 65.2 | 186.9 |
| | Low | 325.7 | ... | 17.4 | 31.2 | 93.8 | 183.3 |
| | All levels | 906.0 | 36.5 | 174.8 | 83.6 | 189.0 | 422.2 |
| Miscellaneous corporate | High | 631.6 | 69.9 | 182.5 | 40.0 | 10.9 | 328.4 |
| | Medium | 852.0 | 57.4 | 167.4 | 52.6 | 47.2 | 527.4 |
| | Low | 713.3 | 16.7 | 17.2 | 56.7 | 47.2 | 575.6 |
| | All levels | 2,196.9 | 144.0 | 367.1 | 149.3 | 105.2 | 1,431.3 |
| Other private | High | 1,489.1 | 151.6 | 639.1 | 210.8 | 158.2 | 329.4 |
| | Medium | 2,193.1 | 136.9 | 607.5 | 421.3 | 346.1 | 681.3 |
| | Low | 1,486.8 | 23.0 | 179.7 | 161.3 | 481.8 | 641.1 |
| | All levels | 5,169.0 | 311.6 | 1,426.3 | 793.3 | 986.1 | 1,651.7 |
| All owners | High | 3,994.7 | 728.9 | 1,537.8 | 516.1 | 335.4 | 876.6 |
| | Medium | 5,909.0 | 565.8 | 1,593.7 | 1,026.1 | 783.0 | 1,940.3 |
| | Low | 3,968.9 | 176.1 | 364.1 | 376.6 | 1,052.3 | 1,999.8 |
| | All levels | 13,872.7 | 1,470.8 | 3,495.6 | 1,918.8 | 2,170.7 | 4,816.7 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 15.--*Volume of softwood growing stock by ownership class, site class, and forest class, Louisiana, 1984*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 708.1 | 113.9 | 430.4 | 120.5 | 19.1 | 24.3 |
| | Medium | 62.8 | ... | 56.4 | 3.5 | 2.8 | ... |
| | Poor | 3.6 | ... | 3.3 | ... | ... | 0.4 |
| | All sites | 774.6 | 113.9 | 490.1 | 124.0 | 21.9 | 24.6 |
| Other public | High | 231.7 | ... | 172.6 | 36.1 | 5.8 | 17.2 |
| | Medium | 38.1 | ... | 2.8 | 5.7 | ... | 29.5 |
| | Poor | 7.4 | ... | 1.5 | ... | ... | 5.9 |
| | All sites | 277.2 | ... | 176.9 | 41.8 | 5.8 | 52.6 |
| Forest industry[2] | High | 2,935.0 | 736.5 | 1,490.8 | 493.1 | 117.8 | 96.8 |
| | Medium | 292.0 | 51.3 | 171.8 | 29.1 | 9.1 | 30.7 |
| | Poor | 14.7 | 2.3 | 1.6 | ... | ... | 10.8 |
| | All sites | 3,241.7 | 790.1 | 1,664.2 | 522.3 | 126.9 | 138.3 |
| Farmer | High | 434.1 | 62.0 | 252.3 | 62.6 | 14.2 | 43.1 |
| | Medium | 59.0 | 6.0 | 15.2 | 2.4 | ... | 35.4 |
| | Poor | 13.4 | ... | ... | ... | ... | 13.4 |
| | All sites | 506.5 | 68.0 | 267.4 | 65.0 | 14.2 | 92.0 |
| Miscellaneous corporate | High | 1,195.2 | 214.3 | 596.8 | 117.5 | 13.5 | 253.1 |
| | Medium | 436.2 | 24.1 | 53.9 | 5.6 | ... | 352.6 |
| | Poor | 60.7 | 12.8 | ... | ... | ... | 47.9 |
| | All sites | 1,692.0 | 251.2 | 650.6 | 123.1 | 13.5 | 653.6 |
| Other private | High | 3,470.4 | 382.6 | 2,181.7 | 537.4 | 177.1 | 191.6 |
| | Medium | 508.9 | 11.3 | 80.9 | 36.4 | 22.4 | 358.1 |
| | Poor | 80.6 | 0.2 | 8.7 | ... | 0.3 | 71.4 |
| | All sites | 4,060.0 | 394.1 | 2,271.3 | 573.8 | 199.8 | 621.0 |
| All owners | High | 8,974.6 | 1,509.3 | 5,124.5 | 1,367.1 | 347.4 | 626.2 |
| | Medium | 1,397.0 | 92.6 | 381.0 | 82.8 | 34.3 | 806.3 |
| | Poor | 180.4 | 15.3 | 15.1 | ... | 0.3 | 149.7 |
| | All sites | 10,552.0 | 1,617.1 | 5,520.6 | 1,450.0 | 382.1 | 1,582.2 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 16.--*Volume of hardwood growing stock by ownership class, site class, and forest class, Louisiana, 1984*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 273.6 | 2.5 | 53.8 | 71.8 | 67.6 | 77.9 |
| | Medium | 15.9 | ... | 2.9 | 4.9 | 3.8 | 4.1 |
| | Poor | 0.3 | ... | ... | ... | ... | 0.3 |
| | All sites | 289.7 | 2.5 | 56.8 | 76.7 | 71.5 | 82.3 |
| Other public | High | 447.2 | ... | 25.9 | 22.2 | 9.1 | 390.0 |
| | Medium | 143.5 | ... | ... | 2.5 | ... | 141.0 |
| | Poor | 26.5 | ... | ... | ... | ... | 26.5 |
| | All sites | 617.2 | ... | 25.9 | 24.7 | 9.1 | 557.4 |
| Forest industry[2] | High | 1,550.2 | 16.0 | 154.5 | 296.7 | 322.2 | 760.9 |
| | Medium | 335.2 | 1.0 | 17.8 | 26.7 | 84.5 | 205.2 |
| | Poor | 3.4 | ... | ... | ... | ... | 3.4 |
| | All sites | 1,888.8 | 16.9 | 172.3 | 323.4 | 406.7 | 969.5 |
| Farmer | High | 530.4 | 0.9 | 56.5 | 29.6 | 126.2 | 317.2 |
| | Medium | 119.0 | 1.2 | 4.1 | 1.8 | 9.6 | 102.4 |
| | Poor | 31.3 | ... | ... | ... | ... | 31.3 |
| | All sites | 680.8 | 2.1 | 60.6 | 31.3 | 135.8 | 451.0 |
| Miscellaneous corporate | High | 1,082.5 | 3.9 | 70.1 | 84.8 | 47.8 | 875.8 |
| | Medium | 581.2 | 0.4 | 0.7 | 6.0 | 13.8 | 560.4 |
| | Poor | 28.1 | ... | ... | ... | 0.9 | 27.2 |
| | All sites | 1,691.8 | 4.3 | 70.8 | 90.8 | 62.5 | 1,463.5 |
| Other private | High | 2,501.0 | 26.7 | 291.0 | 337.0 | 607.4 | 1,238.8 |
| | Medium | 714.4 | ... | 4.0 | 27.6 | 73.4 | 609.4 |
| | Poor | 56.4 | ... | ... | ... | ... | 56.4 |
| | All sites | 3,271.7 | 26.7 | 295.0 | 364.6 | 680.8 | 1,904.5 |
| All owners | High | 6,384.9 | 50.0 | 651.9 | 842.0 | 1,180.4 | 3,660.6 |
| | Medium | 1,909.2 | 2.5 | 29.5 | 69.5 | 185.1 | 1,622.5 |
| | Poor | 145.9 | ... | ... | ... | 0.9 | 145.0 |
| | All sites | 8,440.0 | 52.5 | 681.4 | 911.5 | 1,366.3 | 5,428.2 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 17.--*Area of timberland by ownership class, site class, and forest class, Mississippi, 1977*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 925.8 | 61.7 | 449.8 | 180.3 | 94.7 | 139.2 |
| | Medium | 314.7 | 27.8 | 115.9 | 100.8 | 64.3 | 5.9 |
| | Poor | 12.1 | ... | 12.1 | ... | ... | ... |
| | All sites | 1,252.6 | 89.5 | 577.9 | 281.1 | 159.1 | 145.1 |
| Other public | High | 256.9 | 6.8 | 58.0 | 56.6 | 33.8 | 101.8 |
| | Medium | 84.2 | 11.2 | 37.3 | 19.4 | 10.2 | 6.2 |
| | Poor | 16.5 | ... | 16.5 | ... | ... | ... |
| | All sites | 357.7 | 17.9 | 111.8 | 76.0 | 44.0 | 108.0 |
| Forest industry[2] | High | 2,256.1 | 255.7 | 603.6 | 426.5 | 369.9 | 600.4 |
| | Medium | 981.0 | 215.6 | 228.6 | 222.5 | 186.7 | 127.6 |
| | Poor | 70.3 | 11.4 | 10.5 | 42.2 | 6.2 | ... |
| | All sites | 3,307.3 | 482.7 | 842.7 | 691.2 | 562.8 | 728.0 |
| Farmer | High | 3,381.5 | 149.0 | 727.0 | 672.8 | 932.5 | 900.2 |
| | Medium | 1,405.2 | 62.4 | 287.3 | 301.4 | 571.7 | 182.4 |
| | Poor | 87.1 | 17.1 | 13.1 | 15.8 | 35.7 | 5.5 |
| | All sites | 4,873.8 | 228.5 | 1,027.4 | 989.9 | 1,539.8 | 1,088.0 |
| Miscellaneous corporate | High | 279.7 | 6.4 | 42.5 | 47.0 | 69.2 | 114.6 |
| | Medium | 103.2 | 9.4 | 32.6 | 29.0 | 20.0 | 12.3 |
| | Poor | ... | ... | ... | ... | ... | ... |
| | All sites | 382.9 | 15.8 | 75.1 | 76.0 | 89.2 | 126.9 |
| Other private | High | 4,165.6 | 156.6 | 1,043.3 | 854.9 | 1,092.6 | 1,018.2 |
| | Medium | 1,979.2 | 118.3 | 451.8 | 447.9 | 692.4 | 268.7 |
| | Poor | 158.9 | 11.9 | 43.0 | 34.9 | 46.5 | 22.6 |
| | All sites | 6,303.7 | 286.8 | 1,538.2 | 1,337.7 | 1,831.5 | 1,309.5 |
| All owners | High | 11,265.4 | 636.2 | 2,924.3 | 2,237.9 | 2,592.8 | 2,874.3 |
| | Medium | 4,867.5 | 444.6 | 1,153.5 | 1,121.0 | 1,545.2 | 603.2 |
| | Poor | 344.9 | 40.3 | 95.3 | 93.0 | 38.3 | 28.1 |
| | All sites | 16,478.0 | 1,121.1 | 4,173.1 | 3,451.8 | 4,226.3 | 3,505.6 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 18.--*Area of timberland by ownership class, stocking level, and forest class, Mississippi, 1977*[1]

| Ownership class | Stocking level | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 336.9 | 12.2 | 250.8 | 46.5 | 11.5 | 15.9 |
| | Medium | 795.0 | 70.0 | 305.8 | 205.1 | 121.9 | 92.3 |
| | Low | 120.6 | 7.2 | 21.3 | 29.5 | 25.7 | 36.9 |
| | All levels | 1,252.6 | 89.5 | 577.9 | 281.1 | 159.1 | 145.1 |
| Other public | High | 60.7 | 6.8 | 21.7 | 5.0 | 5.0 | 22.3 |
| | Medium | 236.3 | 5.5 | 73.2 | 66.7 | 34.0 | 56.9 |
| | Low | 60.6 | 5.7 | 16.9 | 4.3 | 5.0 | 28.7 |
| | All levels | 357.7 | 17.9 | 111.8 | 76.0 | 44.0 | 108.0 |
| Forest industry[2] | High | 1,005.0 | 256.9 | 358.5 | 190.4 | 103.9 | 95.4 |
| | Medium | 1,825.1 | 203.1 | 467.8 | 397.2 | 323.6 | 433.3 |
| | Low | 477.2 | 22.7 | 16.4 | 103.6 | 135.3 | 199.3 |
| | All levels | 3,307.3 | 482.7 | 842.7 | 691.2 | 562.8 | 728.0 |
| Farmer | High | 932.6 | 69.4 | 425.2 | 213.7 | 130.3 | 94.0 |
| | Medium | 2,862.0 | 146.6 | 529.8 | 656.5 | 961.9 | 567.3 |
| | Low | 1,079.1 | 12.6 | 72.5 | 119.8 | 447.6 | 426.7 |
| | All levels | 4,873.8 | 228.5 | 1,027.4 | 989.9 | 1,539.8 | 1,088.0 |
| Miscellaneous corporate | High | 83.1 | 10.9 | 25.5 | 29.9 | 6.6 | 10.1 |
| | Medium | 183.5 | 4.9 | 37.8 | 27.6 | 37.3 | 75.8 |
| | Low | 116.4 | ... | 11.7 | 18.4 | 45.3 | 40.9 |
| | All levels | 382.9 | 15.8 | 75.1 | 76.0 | 89.2 | 126.9 |
| Other private | High | 1,183.6 | 110.1 | 537.2 | 177.3 | 203.0 | 156.1 |
| | Medium | 3,750.4 | 138.4 | 856.2 | 893.3 | 1,149.7 | 712.8 |
| | Low | 1,369.8 | 38.3 | 144.8 | 267.2 | 478.8 | 440.7 |
| | All levels | 6,303.7 | 286.8 | 1,538.2 | 1,337.7 | 1,831.5 | 1,309.5 |
| All owners | High | 3,601.9 | 466.2 | 1,618.8 | 662.7 | 460.3 | 393.9 |
| | Medium | 9,652.3 | 568.5 | 2,270.6 | 2,246.3 | 2,628.4 | 1,938.5 |
| | Low | 3,223.7 | 86.5 | 283.7 | 542.8 | 1,137.6 | 1,173.2 |
| | All levels | 16,478.0 | 1,121.1 | 4,173.1 | 3,451.8 | 4,226.3 | 3,505.6 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 19.--*Volume of softwood growing stock by ownership class, site class, and forest class, Mississippi, 1977*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 1,170.1 | 56.4 | 893.1 | 168.2 | 30.8 | 21.5 |
| | Medium | 201.3 | 15.5 | 131.2 | 41.4 | 13.2 | ... |
| | Poor | 0.6 | ... | 0.6 | ... | ... | ... |
| | All sites | 1,372.0 | 72.0 | 1,024.9 | 209.7 | 44.0 | 21.5 |
| Other public | High | 154.7 | 7.6 | 92.1 | 38.9 | 10.9 | 5.2 |
| | Medium | 61.2 | 3.2 | 40.9 | 14.5 | 2.7 | ... |
| | Poor | 4.3 | ... | 4.3 | ... | ... | ... |
| | All sites | 220.2 | 10.7 | 137.3 | 53.4 | 13.6 | 5.2 |
| Forest industry[2] | High | 1,464.3 | 224.1 | 819.2 | 277.4 | 42.4 | 101.2 |
| | Medium | 454.3 | 105.3 | 215.8 | 98.7 | 15.6 | 18.9 |
| | Poor | 23.1 | 8.1 | 9.2 | 4.7 | 1.1 | ... |
| | All sites | 1,941.6 | 337.5 | 1,044.1 | 380.8 | 59.1 | 120.1 |
| Farmer | High | 1,655.8 | 152.3 | 915.2 | 406.3 | 100.4 | 81.6 |
| | Medium | 494.2 | 47.3 | 283.9 | 94.8 | 48.8 | 19.5 |
| | Poor | 22.4 | 5.2 | 8.6 | 1.6 | 5.2 | 1.7 |
| | All sites | 2,172.5 | 204.8 | 1,207.8 | 502.6 | 154.5 | 102.9 |
| Miscellaneous corporate | High | 132.2 | 8.7 | 67.9 | 35.5 | 5.9 | 14.1 |
| | Medium | 43.8 | 6.7 | 22.0 | 11.8 | 0.4 | 3.0 |
| | Poor | ... | ... | ... | ... | ... | ... |
| | All sites | 176.0 | 15.3 | 89.9 | 47.3 | 6.3 | 17.1 |
| Other private | High | 2,341.1 | 176.8 | 1,416.6 | 501.9 | 141.1 | 104.7 |
| | Medium | 680.8 | 57.7 | 343.1 | 190.6 | 62.3 | 27.1 |
| | Poor | 28.2 | 4.9 | 9.9 | 9.2 | 0.9 | 3.2 |
| | All sites | 3,050.2 | 239.4 | 1,769.6 | 701.7 | 204.3 | 135.1 |
| All owners | High | 6,918.2 | 625.9 | 4,204.2 | 1,428.3 | 331.6 | 328.3 |
| | Medium | 1,935.7 | 235.7 | 1,036.8 | 451.7 | 143.0 | 68.5 |
| | Poor | 78.5 | 18.2 | 32.6 | 15.5 | 7.2 | 5.0 |
| | All sites | 8,932.4 | 879.8 | 5,273.6 | 1,895.5 | 481.8 | 401.8 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 20.--*Volume of hardwood growing stock by ownership class, site class, and forest class, Mississippi, 1977*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 482.1 | 3.3 | 110.7 | 102.5 | 102.4 | 163.1 |
| | Medium | 83.3 | 0.4 | 17.5 | 26.5 | 35.0 | 3.9 |
| | Poor | 0.1 | ... | 0.1 | ... | ... | ... |
| | All sites | 565.5 | 3.7 | 128.3 | 129.0 | 137.4 | 167.1 |
| Other public | High | 227.8 | 1.1 | 14.2 | 31.0 | 23.3 | 158.2 |
| | Medium | 19.1 | ... | 6.8 | 5.9 | 3.6 | 2.6 |
| | Poor | 0.1 | ... | 0.1 | ... | ... | ... |
| | All sites | 247.0 | 1.1 | 21.2 | 36.9 | 26.9 | 160.9 |
| Forest industry[2] | High | 1,172.5 | 14.2 | 86.0 | 181.5 | 221.9 | 669.0 |
| | Medium | 288.1 | 4.9 | 20.4 | 51.3 | 92.6 | 118.9 |
| | Poor | 3.5 | ... | 1.3 | 1.9 | 0.4 | ... |
| | All sites | 1,464.2 | 19.1 | 107.7 | 234.7 | 314.9 | 787.9 |
| Farmer | High | 1,947.0 | 14.1 | 125.2 | 311.0 | 609.3 | 887.5 |
| | Medium | 609.3 | 2.3 | 41.0 | 52.1 | 375.7 | 138.2 |
| | Poor | 24.1 | ... | 2.1 | 4.9 | 7.8 | 9.3 |
| | All sites | 2,580.3 | 16.4 | 168.3 | 367.9 | 992.8 | 1,034.9 |
| Miscellaneous corporate | High | 185.7 | 0.4 | 5.5 | 32.1 | 31.8 | 115.9 |
| | Medium | 21.3 | 0.3 | 0.4 | 4.3 | 6.4 | 9.9 |
| | Poor | ... | ... | ... | ... | ... | ... |
| | All sites | 207.0 | 0.7 | 5.9 | 36.4 | 38.1 | 125.9 |
| Other private | High | 2,411.8 | 16.4 | 148.5 | 394.9 | 797.0 | 1,055.0 |
| | Medium | 786.4 | 6.1 | 43.8 | 116.5 | 423.4 | 196.7 |
| | Poor | 40.1 | 1.1 | 1.1 | 11.2 | 10.9 | 15.7 |
| | All sites | 3,238.3 | 23.5 | 193.4 | 522.7 | 1,231.3 | 1,267.5 |
| All owners | High | 6,426.9 | 49.4 | 490.1 | 1,053.0 | 1,785.6 | 3,048.8 |
| | Medium | 1,807.5 | 13.9 | 129.9 | 256.6 | 936.7 | 470.3 |
| | Poor | 67.9 | 1.1 | 4.7 | 18.0 | 19.1 | 25.0 |
| | All sites | 8,302.3 | 64.4 | 624.8 | 1,327.6 | 2,741.4 | 3,544.1 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 21.--*Area of timberland by ownership class, site class, and forest class, Oklahoma, 1976*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 43.3 | ... | 21.6 | 10.8 | 10.9 | ... |
| | Medium | 77.0 | ... | 38.7 | 16.6 | 16.3 | 5.4 |
| | Poor | 71.9 | ... | 27.6 | 5.5 | 38.7 | ... |
| | All sites | 192.2 | ... | 88.0 | 32.9 | 66.0 | 5.4 |
| Other public | High | 24.2 | ... | ... | ... | ... | 24.2 |
| | Medium | 117.9 | ... | 16.2 | 11.6 | 47.3 | 42.7 |
| | Poor | 135.9 | ... | 17.3 | 16.8 | 101.8 | ... |
| | All sites | 278.0 | ... | 33.5 | 28.4 | 149.2 | 66.9 |
| Forest industry[2] | High | 113.4 | ... | 32.4 | 32.4 | 32.4 | 16.2 |
| | Medium | 621.9 | 27.0 | 298.5 | 175.5 | 99.3 | 21.6 |
| | Poor | 260.9 | 5.5 | 77.7 | 73.1 | 99.0 | 5.7 |
| | All sites | 996.2 | 32.5 | 408.6 | 281.0 | 230.6 | 43.5 |
| Farmer | High | 51.0 | ... | ... | 10.9 | 17.5 | 22.6 |
| | Medium | 451.6 | 6.0 | 52.3 | 52.8 | 226.6 | 113.9 |
| | Poor | 621.0 | ... | 46.0 | 22.5 | 529.9 | 22.6 |
| | All sites | 1,123.6 | 6.0 | 98.3 | 86.2 | 774.0 | 159.1 |
| Miscellaneous corporate | High | ... | ... | ... | ... | ... | ... |
| | Medium | 60.7 | 5.4 | 16.5 | 4.5 | 29.7 | 4.6 |
| | Poor | 105.6 | ... | 6.0 | 27.7 | 67.4 | 4.5 |
| | All sites | 166.3 | 5.4 | 22.4 | 32.2 | 97.1 | 9.1 |
| Other private | High | 37.2 | ... | ... | 16.6 | 10.0 | 10.5 |
| | Medium | 548.4 | ... | 94.6 | 106.6 | 239.9 | 107.4 |
| | Poor | 978.0 | ... | 57.0 | 108.6 | 788.9 | 23.5 |
| | All sites | 1,563.6 | ... | 151.6 | 231.7 | 1,038.8 | 141.4 |
| All owners | High | 269.2 | ... | 54.0 | 70.7 | 70.9 | 73.6 |
| | Medium | 1,877.4 | 38.4 | 516.8 | 367.6 | 659.1 | 295.6 |
| | Poor | 2,173.2 | 5.5 | 231.6 | 254.1 | 1,625.7 | 56.3 |
| | All sites | 4,319.8 | 43.9 | 802.3 | 692.5 | 2,355.7 | 425.4 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 22.--*Area of timberland by ownership class, stocking level, and forest class, Oklahoma, 1976*[1]

| Ownership class | Stocking level | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 49.2 | ... | 43.8 | 5.4 | ... | ... |
| | Medium | 93.2 | ... | 38.6 | 16.5 | 32.8 | 5.4 |
| | Low | 49.8 | ... | 5.5 | 11.1 | 33.2 | ... |
| | All levels | 192.2 | ... | 88.0 | 32.9 | 66.0 | 5.4 |
| Other public | High | 17.9 | ... | ... | ... | 6.0 | 12.0 |
| | Medium | 111.1 | ... | 33.5 | 10.8 | 55.6 | 11.3 |
| | Low | 148.9 | ... | ... | 17.6 | 87.7 | 43.7 |
| | All levels | 278.0 | ... | 33.5 | 28.4 | 149.2 | 66.9 |
| Forest industry[2] | High | 274.8 | 21.7 | 160.3 | 71.2 | 16.2 | 5.4 |
| | Medium | 545.3 | 10.8 | 232.0 | 148.8 | 137.2 | 16.5 |
| | Low | 176.0 | ... | 16.2 | 61.0 | 77.2 | 21.6 |
| | All levels | 996.2 | 32.5 | 408.6 | 281.0 | 230.6 | 43.5 |
| Farmer | High | 55.3 | ... | 16.8 | 5.7 | 16.0 | 16.8 |
| | Medium | 361.3 | ... | 75.8 | 34.2 | 222.3 | 28.9 |
| | Low | 707.0 | 6.0 | 5.7 | 46.3 | 535.7 | 113.4 |
| | All levels | 1,123.6 | 6.0 | 98.3 | 86.2 | 774.0 | 159.1 |
| Miscellaneous corporate | High | 26.7 | 5.4 | 16.8 | 4.5 | ... | ... |
| | Medium | 51.8 | ... | 5.7 | 10.9 | 30.7 | 4.5 |
| | Low | 87.8 | ... | ... | 16.8 | 66.4 | 4.6 |
| | All levels | 166.3 | 5.4 | 22.4 | 32.2 | 97.1 | 9.1 |
| Other private | High | 94.8 | ... | 61.4 | 17.5 | 15.9 | ... |
| | Medium | 612.6 | ... | 72.9 | 106.3 | 371.1 | 62.4 |
| | Low | 856.2 | ... | 17.3 | 108.0 | 651.9 | 79.0 |
| | All levels | 1,563.6 | ... | 151.6 | 231.7 | 1,038.8 | 141.4 |
| All owners | High | 518.7 | 27.1 | 299.1 | 104.2 | 54.0 | 34.2 |
| | Medium | 1,775.3 | 10.8 | 458.5 | 327.5 | 849.6 | 128.9 |
| | Low | 2,025.8 | 6.0 | 44.7 | 260.8 | 1,452.0 | 262.3 |
| | All levels | 4,319.8 | 43.9 | 802.3 | 692.5 | 2,355.7 | 425.4 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 23.--*Volume of softwood growing stock by ownership class, site class, and forest class, Oklahoma, 1976*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 48.3 | ... | 38.8 | 6.0 | 3.6 | ... |
| | Medium | 44.6 | ... | 34.8 | 5.1 | 4.7 | ... |
| | Poor | 22.4 | ... | 16.4 | 2.9 | 3.1 | ... |
| | All sites | 115.4 | ... | 90.0 | 14.0 | 11.3 | ... |
| Other public | High | ... | ... | ... | ... | ... | ... |
| | Medium | 24.1 | ... | 18.2 | 4.9 | 1.0 | ... |
| | Poor | 14.5 | ... | 8.8 | 5.1 | 0.7 | ... |
| | All sites | 38.7 | ... | 26.9 | 10.0 | 1.8 | ... |
| Forest industry[2] | High | 64.0 | ... | 44.1 | 14.2 | 5.4 | 0.3 |
| | Medium | 377.4 | ... | 285.0 | 75.6 | 16.1 | 0.7 |
| | Poor | 79.2 | ... | 49.6 | 22.5 | 7.1 | ... |
| | All sites | 520.6 | ... | 378.7 | 112.4 | 28.6 | 1.0 |
| Farmer | High | 5.4 | ... | ... | 4.5 | ... | 0.9 |
| | Medium | 75.1 | 8.5 | 46.6 | 14.4 | 5.1 | 0.6 |
| | Poor | 28.9 | ... | 17.3 | 6.4 | 5.3 | ... |
| | All sites | 109.4 | 8.5 | 63.9 | 25.3 | 10.3 | 1.4 |
| Miscellaneous corporate | High | ... | ... | ... | ... | ... | ... |
| | Medium | 18.5 | ... | 14.7 | 1.2 | 2.6 | ... |
| | Poor | 11.3 | ... | 3.0 | 6.7 | 1.5 | ... |
| | All sites | 29.7 | ... | 17.7 | 7.9 | 4.1 | ... |
| Other private | High | 6.7 | ... | ... | 6.7 | ... | ... |
| | Medium | 123.2 | ... | 78.2 | 37.6 | 7.4 | ... |
| | Poor | 67.0 | ... | 27.9 | 23.7 | 15.4 | ... |
| | All sites | 196.9 | ... | 106.1 | 68.0 | 22.8 | ... |
| All owners | High | 124.4 | ... | 82.9 | 31.4 | 9.0 | 1.2 |
| | Medium | 663.0 | 8.5 | 477.5 | 138.9 | 36.8 | 1.2 |
| | Poor | 223.3 | ... | 122.9 | 67.3 | 33.0 | ... |
| | All sites | 1,010.7 | 8.5 | 683.3 | 237.6 | 78.8 | 2.5 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 24.--*Volume of hardwood growing stock by ownership class, site class, and forest class, Oklahoma, 1976*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 19.8 | ... | 7.1 | 7.9 | 4.7 | ... |
| | Medium | 29.0 | ... | 5.0 | 3.6 | 14.3 | 6.0 |
| | Poor | 18.1 | ... | 1.2 | 2.3 | 14.6 | ... |
| | All sites | 66.8 | ... | 13.4 | 13.8 | 33.7 | 6.0 |
| Other public | High | 30.5 | ... | ... | ... | ... | 30.5 |
| | Medium | 27.0 | ... | 1.9 | 2.3 | 9.4 | 13.4 |
| | Poor | 21.2 | ... | 1.2 | 1.0 | 18.9 | ... |
| | All sites | 78.7 | ... | 3.2 | 3.3 | 28.3 | 43.9 |
| Forest industry[2] | High | 42.0 | ... | 3.5 | 4.7 | 14.9 | 18.8 |
| | Medium | 125.7 | ... | 25.0 | 37.8 | 40.9 | 21.9 |
| | Poor | 43.5 | ... | 3.6 | 9.4 | 30.4 | ... |
| | All sites | 211.1 | ... | 32.1 | 52.0 | 86.2 | 40.8 |
| Farmer | High | 37.8 | ... | ... | 2.6 | 7.6 | 27.6 |
| | Medium | 141.2 | ... | 3.1 | 3.8 | 77.1 | 57.2 |
| | Poor | 133.3 | ... | 3.1 | 0.2 | 117.1 | 13.0 |
| | All sites | 312.3 | ... | 6.2 | 6.5 | 201.8 | 97.8 |
| Miscellaneous corporate | High | ... | ... | ... | ... | ... | ... |
| | Medium | 6.8 | ... | ... | 1.0 | 5.1 | 0.8 |
| | Poor | 16.4 | ... | 0.4 | 3.5 | 10.8 | 1.8 |
| | All sites | 23.2 | ... | 0.4 | 4.5 | 15.8 | 2.5 |
| Other private | High | 15.3 | ... | ... | 3.9 | 4.2 | 7.2 |
| | Medium | 164.1 | ... | 5.4 | 14.2 | 88.3 | 56.2 |
| | Poor | 176.3 | ... | 3.3 | 6.7 | 153.7 | 12.5 |
| | All sites | 355.7 | ... | 8.7 | 24.8 | 246.2 | 76.0 |
| All owners | High | 145.3 | ... | 10.6 | 19.0 | 31.5 | 84.2 |
| | Medium | 493.8 | ... | 40.5 | 62.7 | 235.1 | 155.5 |
| | Poor | 408.8 | ... | 12.9 | 23.1 | 345.5 | 27.3 |
| | All sites | 1,047.9 | ... | 64.0 | 104.9 | 612.0 | 267.0 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 25.--*Area of timberland by ownership class, site class, and forest class, Tennessee, 1980*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 116.7 | ... | 15.5 | 32.2 | 69.0 | ... |
| | Medium | 312.0 | ... | 66.4 | 53.1 | 174.8 | 17.7 |
| | Poor | 152.4 | ... | 11.5 | 33.8 | 101.4 | 5.7 |
| | All sites | 581.0 | ... | 93.4 | 119.0 | 345.1 | 23.5 |
| Other public | High | 300.8 | 5.0 | 23.0 | 42.8 | 165.3 | 64.8 |
| | Medium | 325.1 | 12.2 | 30.8 | 59.1 | 208.3 | 14.7 |
| | Poor | 152.5 | 6.1 | ... | 28.7 | 117.8 | ... |
| | All sites | 778.5 | 23.3 | 53.8 | 130.6 | 491.3 | 79.6 |
| Forest industry[2] | High | 386.0 | 40.0 | 17.5 | 46.7 | 212.9 | 69.0 |
| | Medium | 613.0 | 73.5 | 33.9 | 62.7 | 413.0 | 29.8 |
| | Poor | 256.8 | 22.5 | 6.2 | 25.9 | 202.1 | ... |
| | All sites | 1,255.8 | 136.0 | 57.6 | 135.3 | 828.1 | 98.8 |
| Farmer | High | 1,566.9 | 27.4 | 90.9 | 114.7 | 1,073.2 | 260.7 |
| | Medium | 2,112.6 | 12.6 | 117.9 | 247.2 | 1,683.3 | 51.5 |
| | Poor | 767.5 | ... | 94.9 | 90.5 | 571.6 | 10.6 |
| | All sites | 4,447.0 | 40.1 | 303.6 | 452.4 | 3,328.1 | 322.8 |
| Miscellaneous corporate | High | 206.8 | ... | 18.5 | 23.1 | 160.1 | 5.2 |
| | Medium | 477.5 | 10.9 | 28.0 | 55.6 | 355.5 | 27.5 |
| | Poor | 214.6 | ... | ... | 12.1 | 202.6 | ... |
| | All sites | 898.9 | 10.9 | 46.5 | 90.7 | 718.1 | 32.6 |
| Other private | High | 1,470.9 | 68.8 | 140.2 | 124.0 | 939.4 | 198.5 |
| | Medium | 2,438.5 | 29.3 | 203.4 | 254.0 | 1,882.8 | 69.0 |
| | Poor | 992.6 | 6.1 | 121.9 | 124.7 | 727.2 | 12.8 |
| | All sites | 4,902.0 | 104.2 | 465.4 | 502.7 | 3,549.4 | 280.3 |
| All owners | High | 4,048.1 | 141.2 | 305.5 | 383.4 | 2,619.8 | 598.2 |
| | Medium | 6,278.7 | 138.5 | 480.5 | 731.7 | 4,717.7 | 210.3 |
| | Poor | 2,536.5 | 34.7 | 234.4 | 315.6 | 1,922.6 | 29.1 |
| | All sites | 12,863.1 | 314.4 | 1,020.4 | 1,430.7 | 9,260.0 | 837.6 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 26.--*Area of timberland by ownership class, stocking level, and forest class, Tennessee, 1980*[1]

| Ownership class | Stocking level | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 201.8 | ... | 53.9 | 59.1 | 88.9 | ... |
| | Medium | 304.1 | ... | 39.6 | 54.8 | 186.2 | 23.5 |
| | Low | 75.1 | ... | ... | 5.2 | 69.9 | ... |
| | All levels | 581.0 | ... | 93.4 | 119.0 | 345.1 | 23.5 |
| Other public | High | 123.5 | 6.1 | 5.1 | 48.4 | 47.8 | 16.1 |
| | Medium | 524.1 | 17.2 | 48.7 | 65.4 | 354.3 | 38.5 |
| | Low | 130.9 | ... | ... | 16.8 | 89.1 | 25.0 |
| | All levels | 778.5 | 23.3 | 53.8 | 130.6 | 491.3 | 79.6 |
| Forest industry[2] | High | 320.4 | 79.0 | 17.7 | 45.7 | 152.8 | 25.1 |
| | Medium | 755.0 | 45.1 | 33.8 | 67.7 | 578.0 | 30.4 |
| | Low | 180.5 | 11.9 | 6.2 | 21.8 | 97.3 | 43.3 |
| | All levels | 1,255.8 | 136.0 | 57.6 | 135.3 | 828.1 | 98.8 |
| Farmer | High | 677.7 | 21.3 | 104.4 | 101.2 | 445.1 | 5.8 |
| | Medium | 2,674.1 | 18.8 | 156.5 | 283.2 | 2,031.4 | 184.2 |
| | Low | 1,095.1 | ... | 42.7 | 68.0 | 851.5 | 132.9 |
| | All levels | 4,447.0 | 40.1 | 303.6 | 452.4 | 3,328.1 | 322.8 |
| Miscellaneous corporate | High | 139.8 | 5.7 | 22.3 | 34.4 | 70.2 | 7.2 |
| | Medium | 598.1 | 5.2 | 24.2 | 49.9 | 504.3 | 14.5 |
| | Low | 161.0 | ... | ... | 6.5 | 143.6 | 10.9 |
| | All levels | 898.9 | 10.9 | 46.5 | 90.7 | 718.1 | 32.6 |
| Other private | High | 846.1 | 75.9 | 135.9 | 124.9 | 475.9 | 33.5 |
| | Medium | 2,982.3 | 28.3 | 289.3 | 307.6 | 2,194.4 | 162.7 |
| | Low | 1,073.7 | ... | 40.2 | 70.2 | 879.2 | 84.1 |
| | All levels | 4,902.0 | 104.2 | 465.4 | 502.7 | 3,549.4 | 280.3 |
| All owners | High | 2,309.3 | 188.0 | 339.2 | 413.7 | 1,280.7 | 87.7 |
| | Medium | 7,837.6 | 114.5 | 592.1 | 828.5 | 5,848.7 | 453.7 |
| | Low | 2,716.3 | 11.9 | 89.1 | 188.4 | 2,130.7 | 296.1 |
| | All levels | 12,863.1 | 314.4 | 1,020.4 | 1,430.7 | 9,260.0 | 837.6 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 27.--*Volume of softwood growing stock by ownership class, site class, and forest class, Tennessee, 1980*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| ational forest | High | 88.6 | ... | 41.4 | 35.1 | 12.1 | ... |
| | Medium | 158.2 | ... | 114.5 | 28.8 | 14.9 | ... |
| | Poor | 44.1 | ... | 16.7 | 21.2 | 6.2 | ... |
| | All sites | 290.8 | ... | 172.6 | 85.1 | 33.1 | ... |
| ther public | High | 130.2 | 9.4 | 32.1 | 40.8 | 11.6 | 36.3 |
| | Medium | 84.0 | 11.0 | 20.3 | 23.5 | 29.2 | ... |
| | Poor | 11.1 | 3.5 | ... | 5.6 | 2.0 | ... |
| | All sites | 225.3 | 24.0 | 52.3 | 69.9 | 42.8 | 36.3 |
| orest industry[2] | High | 152.5 | 49.5 | 19.8 | 46.1 | 16.4 | 20.8 |
| | Medium | 109.0 | 29.1 | 22.8 | 25.1 | 30.9 | 1.2 |
| | Poor | 8.2 | ... | ... | 5.7 | 2.5 | ... |
| | All sites | 269.7 | 78.5 | 42.6 | 76.8 | 49.7 | 22.0 |
| armer | High | 256.2 | 31.2 | 107.1 | 67.3 | 47.0 | 3.5 |
| | Medium | 221.2 | 18.5 | 55.7 | 96.2 | 48.9 | 1.8 |
| | Poor | 91.2 | ... | 51.5 | 20.2 | 18.8 | 0.7 |
| | All sites | 568.5 | 49.7 | 214.3 | 183.8 | 114.7 | 6.0 |
| iscellaneous corporate | High | 40.8 | ... | 13.1 | 13.6 | 14.1 | ... |
| | Medium | 87.5 | 4.9 | 25.5 | 31.4 | 21.3 | 4.4 |
| | Poor | 13.4 | ... | ... | 3.2 | 10.3 | ... |
| | All sites | 141.7 | 4.9 | 38.7 | 48.1 | 45.6 | 4.4 |
| ther private | High | 441.0 | 101.9 | 192.5 | 95.8 | 48.5 | 2.3 |
| | Medium | 368.7 | 51.8 | 146.5 | 90.2 | 75.9 | 4.3 |
| | Poor | 98.4 | 1.8 | 39.4 | 40.3 | 16.9 | ... |
| | All sites | 908.1 | 155.4 | 378.5 | 226.3 | 141.3 | 6.6 |
| ll owners | High | 1,109.3 | 192.0 | 406.0 | 298.7 | 149.6 | 62.9 |
| | Medium | 1,028.6 | 115.3 | 385.3 | 295.3 | 221.1 | 11.7 |
| | Poor | 266.4 | 5.3 | 107.6 | 96.1 | 56.6 | 0.7 |
| | All sites | 2,404.2 | 312.6 | 898.9 | 690.1 | 427.3 | 75.3 |

[1] Totals may not add due to rounding.
[2] Includes land under long-term lease.

Table 28.--*Volume of hardwood growing stock by ownership class, site class, and forest class, Tennessee, 1980*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 141.0 | ... | 4.9 | 23.8 | 112.3 | ... |
| | Medium | 281.2 | ... | 18.6 | 32.3 | 209.5 | 20.8 |
| | Poor | 114.4 | ... | 2.5 | 19.6 | 86.1 | 6.2 |
| | All sites | 536.6 | ... | 26.0 | 75.7 | 407.8 | 27.0 |
| Other public | High | 312.4 | ... | 7.3 | 41.9 | 204.4 | 58.8 |
| | Medium | 255.3 | 0.8 | 8.7 | 27.3 | 198.8 | 19.7 |
| | Poor | 93.4 | 1.9 | ... | 6.0 | 85.5 | ... |
| | All sites | 661.1 | 2.7 | 16.1 | 75.2 | 488.8 | 78.4 |
| Forest industry[2] | High | 403.0 | 5.6 | 7.0 | 32.5 | 264.7 | 93.1 |
| | Medium | 423.0 | 2.5 | 5.1 | 15.4 | 336.2 | 63.8 |
| | Poor | 154.1 | ... | ... | 2.9 | 151.1 | ... |
| | All sites | 980.0 | 8.2 | 12.0 | 50.9 | 752.0 | 156.9 |
| Farmer | High | 1,613.4 | 2.5 | 17.1 | 67.1 | 1,206.1 | 320.5 |
| | Medium | 1,610.1 | 1.1 | 15.3 | 97.8 | 1,470.1 | 25.8 |
| | Poor | 499.7 | ... | 16.3 | 23.6 | 449.7 | 10.1 |
| | All sites | 3,723.2 | 3.6 | 48.7 | 188.5 | 3,126.0 | 356.4 |
| Miscellaneous corporate | High | 211.9 | ... | 1.2 | 16.3 | 188.2 | 6.3 |
| | Medium | 371.6 | ... | 2.3 | 28.3 | 310.5 | 30.6 |
| | Poor | 156.1 | ... | ... | 5.5 | 150.6 | ... |
| | All sites | 739.7 | ... | 3.5 | 50.1 | 649.3 | 36.8 |
| Other private | High | 1,354.2 | 11.8 | 21.6 | 71.6 | 1,024.6 | 224.6 |
| | Medium | 1,829.8 | 1.3 | 23.7 | 90.9 | 1,652.0 | 62.0 |
| | Poor | 571.6 | 0.2 | 10.6 | 46.4 | 505.9 | 8.5 |
| | All sites | 3,755.7 | 13.3 | 55.9 | 208.9 | 3,182.6 | 295.1 |
| All owners | High | 4,035.9 | 19.9 | 59.0 | 253.2 | 3,000.5 | 703.3 |
| | Medium | 4,771.1 | 5.7 | 73.7 | 292.0 | 4,177.0 | 222.7 |
| | Poor | 1,589.3 | 2.1 | 29.4 | 104.0 | 1,429.0 | 24.8 |
| | All sites | 10,396.3 | 27.7 | 162.1 | 649.2 | 8,606.5 | 950.7 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 29.--*Area of timberland by ownership class, site class, and forest class, Texas, 1975*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 432.2 | 16.5 | 332.5 | 46.4 | 18.6 | 18.1 |
| | Medium | 222.9 | 19.1 | 160.2 | 37.5 | 6.0 | ... |
| | Poor | 6.0 | ... | ... | ... | ... | 6.0 |
| | All sites | 661.0 | 35.6 | 492.7 | 84.0 | 24.6 | 24.1 |
| Other public | High | 56.7 | 5.6 | 22.4 | 11.2 | 12.1 | 5.4 |
| | Medium | 142.4 | ... | 37.4 | 12.1 | 42.0 | 50.9 |
| | Poor | 14.9 | ... | ... | ... | 9.4 | 5.5 |
| | All sites | 214.0 | 5.6 | 59.8 | 23.3 | 63.5 | 61.8 |
| Forest industry[2] | High | 2,390.0 | 199.1 | 950.0 | 685.1 | 275.0 | 280.9 |
| | Medium | 1,433.6 | 130.2 | 528.4 | 268.5 | 243.8 | 262.6 |
| | Poor | 46.0 | 11.5 | 23.2 | 5.8 | 5.6 | ... |
| | All sites | 3,869.6 | 340.8 | 1,501.5 | 959.4 | 524.4 | 543.5 |
| Farmer | High | 321.5 | 5.6 | 113.4 | 58.9 | 40.8 | 102.8 |
| | Medium | 579.6 | 18.2 | 115.4 | 93.0 | 183.0 | 169.9 |
| | Poor | 233.7 | ... | 5.8 | 20.9 | 186.9 | 20.1 |
| | All sites | 1,134.9 | 23.9 | 234.6 | 172.7 | 410.8 | 292.8 |
| Miscellaneous corporate | High | 184.4 | 5.8 | 66.2 | 35.1 | 40.3 | 37.1 |
| | Medium | 275.7 | ... | 72.6 | 58.7 | 92.5 | 51.9 |
| | Poor | 26.0 | ... | 9.5 | ... | 4.7 | 11.9 |
| | All sites | 486.1 | 5.8 | 148.2 | 93.8 | 137.5 | 100.8 |
| Other private | High | 2,513.6 | 69.0 | 867.1 | 641.0 | 450.2 | 486.4 |
| | Medium | 2,969.4 | 88.8 | 864.6 | 522.7 | 865.4 | 627.9 |
| | Poor | 661.8 | ... | 20.1 | 53.3 | 542.6 | 45.7 |
| | All sites | 6,144.8 | 157.8 | 1,751.8 | 1,217.0 | 1,858.1 | 1,160.1 |
| All owners | High | 5,898.5 | 301.7 | 2,351.5 | 1,477.6 | 837.0 | 930.7 |
| | Medium | 5,623.4 | 256.4 | 1,778.6 | 992.6 | 1,432.7 | 1,163.2 |
| | Poor | 988.5 | 11.5 | 58.6 | 80.0 | 749.2 | 89.2 |
| | All sites | 12,510.3 | 569.6 | 4,188.7 | 2,550.2 | 3,018.8 | 2,183.1 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 30.--*Area of timberland by ownership class, stocking level, and forest class, Texas, 1975*[1]

| Ownership class | Stocking level | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *thousand acres* | | | | | |
| National forest | High | 383.2 | 18.2 | 321.7 | 36.9 | 6.4 | ... |
| | Medium | 235.6 | 12.1 | 159.2 | 33.9 | 12.2 | 18.1 |
| | Low | 42.2 | 5.4 | 11.8 | 13.1 | 6.0 | 6.0 |
| | All levels | 661.0 | 35.6 | 492.7 | 84.0 | 24.6 | 24.1 |
| Other public | High | 49.0 | ... | 36.9 | 6.3 | 5.8 | ... |
| | Medium | 123.9 | ... | 23.0 | 11.2 | 45.7 | 44.1 |
| | Low | 41.0 | 5.6 | ... | 5.8 | 11.9 | 17.6 |
| | All levels | 214.0 | 5.6 | 59.8 | 23.3 | 63.5 | 61.8 |
| Forest industry[2] | High | 889.0 | 156.7 | 519.4 | 163.8 | 31.1 | 18.0 |
| | Medium | 2,314.6 | 155.3 | 850.9 | 696.2 | 313.6 | 298.6 |
| | Low | 666.0 | 28.8 | 131.3 | 99.3 | 179.7 | 226.9 |
| | All levels | 3,869.6 | 340.8 | 1,501.5 | 959.4 | 524.4 | 543.5 |
| Farmer | High | 168.2 | 18.5 | 61.8 | 22.5 | 17.7 | 47.8 |
| | Medium | 519.2 | 5.4 | 129.2 | 112.0 | 135.2 | 137.4 |
| | Low | 447.5 | ... | 43.7 | 38.3 | 257.9 | 107.7 |
| | All levels | 1,134.9 | 23.9 | 234.6 | 172.7 | 410.8 | 292.8 |
| Miscellaneous corporate | High | 105.7 | 5.8 | 65.2 | 18.0 | 4.7 | 11.9 |
| | Medium | 252.7 | ... | 77.2 | 63.4 | 78.6 | 33.6 |
| | Low | 127.7 | ... | 5.8 | 12.4 | 54.2 | 55.3 |
| | All levels | 486.1 | 5.8 | 148.2 | 93.8 | 137.5 | 100.8 |
| Other private | High | 1,047.3 | 81.2 | 599.3 | 181.4 | 127.5 | 58.0 |
| | Medium | 3,259.7 | 71.3 | 1,009.7 | 802.5 | 890.4 | 485.8 |
| | Low | 1,837.7 | 5.2 | 142.8 | 233.2 | 840.2 | 616.3 |
| | All levels | 6,144.8 | 157.8 | 1,751.8 | 1,217.0 | 1,858.1 | 1,160.1 |
| All owners | High | 2,642.4 | 280.5 | 1,604.2 | 428.8 | 193.2 | 135.6 |
| | Medium | 6,705.7 | 244.0 | 2,249.1 | 1,719.2 | 1,475.8 | 1,017.7 |
| | Low | 3,162.3 | 45.0 | 335.4 | 402.2 | 1,349.8 | 1,029.9 |
| | All levels | 12,510.3 | 569.6 | 4,188.7 | 2,550.2 | 3,018.8 | 2,183.1 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

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Table 31.--*Volume of softwood growing stock by ownership class, site class, and forest class, Texas, 1975*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 811.7 | 14.4 | 738.4 | 50.2 | 1.6 | 7.1 |
| | Medium | 351.4 | 9.6 | 309.2 | 31.6 | 1.0 | ... |
| | Poor | ... | ... | ... | ... | ... | ... |
| | All sites | 1,163.1 | 24.0 | 1,047.6 | 81.8 | 2.6 | 7.1 |
| Other public | High | 81.4 | 8.3 | 61.3 | 8.9 | 2.8 | ... |
| | Medium | 53.5 | ... | 43.3 | 4.7 | 5.4 | ... |
| | Poor | 0.8 | ... | ... | ... | 0.8 | ... |
| | All sites | 135.6 | 8.3 | 104.6 | 13.6 | 9.1 | ... |
| Forest industry[2] | High | 2,339.7 | 148.0 | 1,453.5 | 599.7 | 80.8 | 57.6 |
| | Medium | 844.8 | 77.0 | 522.2 | 171.7 | 32.0 | 41.9 |
| | Poor | 22.1 | 2.2 | 18.0 | 1.5 | 0.3 | ... |
| | All sites | 3,206.5 | 227.2 | 1,993.8 | 772.9 | 113.1 | 99.5 |
| Farmer | High | 190.9 | 8.2 | 133.8 | 34.8 | 11.6 | 2.5 |
| | Medium | 141.7 | 19.5 | 79.5 | 36.8 | 5.4 | 0.4 |
| | Poor | 6.0 | ... | 1.6 | 3.8 | 0.5 | ... |
| | All sites | 338.5 | 27.7 | 215.0 | 75.4 | 17.5 | 2.9 |
| Miscellaneous corporate | High | 107.4 | ... | 82.7 | 17.3 | 4.3 | 3.1 |
| | Medium | 104.2 | ... | 72.6 | 21.3 | 9.9 | 0.4 |
| | Poor | 1.6 | ... | 0.7 | ... | 0.8 | ... |
| | All sites | 213.2 | ... | 156.0 | 38.6 | 14.9 | 3.5 |
| Other private | High | 1,898.7 | 99.3 | 1,240.6 | 419.0 | 94.9 | 45.1 |
| | Medium | 1,177.0 | 79.7 | 752.2 | 241.9 | 74.0 | 29.1 |
| | Poor | 27.0 | ... | 4.3 | 13.8 | 9.0 | ... |
| | All sites | 3,102.7 | 179.0 | 1,997.1 | 674.6 | 177.9 | 74.2 |
| All owners | High | 5,429.7 | 278.2 | 3,710.3 | 1,130.0 | 195.9 | 115.4 |
| | Medium | 2,672.5 | 185.8 | 1,779.1 | 507.9 | 127.8 | 71.9 |
| | Poor | 57.4 | 2.2 | 24.6 | 19.1 | 11.4 | ... |
| | All sites | 8,159.7 | 466.2 | 5,514.0 | 1,657.0 | 335.1 | 187.3 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

Table 32.--*Volume of hardwood growing stock by ownership class, site class, and forest class, Texas, 1975*[1]

| Ownership class | Site class | All classes | Forest class | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pine plantations | Natural pine | Mixed pine-hardwoods | Upland hardwoods | Bottomland hardwoods |
| | | *million cubic feet* | | | | | |
| National forest | High | 124.9 | 1.4 | 52.6 | 36.7 | 4.0 | 30.2 |
| | Medium | 29.7 | ... | 20.4 | 7.1 | 2.3 | ... |
| | Poor | 7.9 | ... | ... | ... | ... | 7.9 |
| | All sites | 162.5 | 1.4 | 73.0 | 43.8 | 6.2 | 38.1 |
| Other public | High | 19.8 | 0.3 | 3.8 | 5.9 | 8.2 | 1.7 |
| | Medium | 69.0 | ... | 1.8 | 7.2 | 20.5 | 39.6 |
| | Poor | 7.9 | ... | ... | ... | 7.5 | 0.4 |
| | All sites | 96.7 | 0.3 | 5.5 | 13.1 | 36.2 | 41.7 |
| Forest industry[2] | High | 865.7 | 3.7 | 162.9 | 318.2 | 121.5 | 259.4 |
| | Medium | 469.1 | 6.8 | 43.3 | 82.9 | 94.9 | 241.1 |
| | Poor | 3.6 | ... | 2.5 | 0.5 | 0.6 | ... |
| | All sites | 1,338.4 | 10.5 | 208.8 | 401.5 | 217.0 | 500.6 |
| Farmer | High | 175.0 | ... | 20.4 | 30.9 | 20.0 | 103.7 |
| | Medium | 224.4 | 2.0 | 10.1 | 28.8 | 73.7 | 109.8 |
| | Poor | 97.3 | ... | 1.2 | 1.2 | 84.5 | 10.4 |
| | All sites | 496.7 | 2.0 | 31.7 | 60.9 | 178.1 | 223.9 |
| Miscellaneous corporate | High | 77.5 | ... | 8.6 | 16.1 | 21.7 | 31.1 |
| | Medium | 93.7 | ... | 8.5 | 15.2 | 38.5 | 31.6 |
| | Poor | 8.3 | ... | 3.0 | ... | 2.2 | 3.0 |
| | All sites | 179.5 | ... | 20.1 | 31.2 | 62.4 | 65.7 |
| Other private | High | 1,083.4 | 2.4 | 152.8 | 280.6 | 223.6 | 424.0 |
| | Medium | 989.1 | 0.8 | 103.0 | 155.3 | 341.4 | 388.7 |
| | Poor | 222.3 | ... | 0.7 | 3.0 | 195.1 | 23.5 |
| | All sites | 2,294.7 | 3.2 | 256.5 | 438.8 | 760.1 | 836.1 |
| All owners | High | 2,346.3 | 7.7 | 401.2 | 688.4 | 398.9 | 850.1 |
| | Medium | 1,875.0 | 9.6 | 187.1 | 296.3 | 571.2 | 810.8 |
| | Poor | 347.2 | ... | 7.4 | 4.7 | 289.9 | 45.1 |
| | All sites | 4,568.5 | 17.3 | 595.7 | 989.4 | 1,260.0 | 1,706.0 |

[1]Totals may not add due to rounding.
[2]Includes land under long-term lease.

McWilliams, William H. and Bridsey, Richard A. Midsouth timber statistics. Resourc. Bull. SO-108 New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1986.42 p.

Timberland area and volume statistics are presented for the Midsouth and individual states. The Midsouth is 50 percent forested with 98 million acres of timberland. The region's forest supports 103 billion cubic feet of growing stock. Stands are concentrated on productive sites with adequate stocking of trees.

Additional keywords: Timberland area, timber volume, forest ownership, forest class, productivity, stocking.

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# Oklahoma Forest Industries, 1984

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## INTRODUCTION

This publication reports the findings of a 1984 canvass of Oklahoma's primary forest industries. The canvass was conducted by personnel of the Forestry Division of Oklahoma's Department of Agriculture. Results were tabulated and analyzed by the Forest Inventory and Analysis (FIA) Unit of the Southern Forest Experiment Station. When necessary, reported units were converted into standard units or cubic feet by the FIA Unit. The volume of byproducts used for fiber and roundwood used for pulpwood reported in this canvass were derived from the "Southern Pulpwood Production" report for 1984. The tabulated columns of tables 1–15 may not add due to rounding. Previous production figures used for comparison purposes in this report can be found in "Oklahoma Forest Industries, 1972" (USDA For. Serv. Resour. Bull. SO-45), "Oklahoma Forest Industries, 1975" (USDA For. Serv. Resour. Bull. SO-64), and "Oklahoma Forest Industries, 1978" (USDA For. Serv. Resour. Bull. SO-78), all of which are available from the Southern Forest Experiment Station.

## ROUNDWOOD

In 1984, Oklahoma supplied 55.3 million cubic feet of roundwood to the wood products industry, a decline of 24 percent from 1978's production of 72.8 million cubic feet. This drop can be attributed to a decline in Oklahoma's pulpwood production in 1984. Softwoods made up approximately three-quarters of the roundwood volume. Most of the softwood production in Oklahoma came from the southeastern counties of the state, while the hardwood production was distributed among the eastern counties of the state (figs. 3 & 4). Five southeastern counties (Choctaw, Latimer, Le Flore, McCurtain and Pushmataha) accounted for 99.3 percent of the softwood production, but only accounted for 81.2 percent of the hardwood production. Collectively, these five counties accounted for 52.4 million cubic feet or 94.6 percent of the total roundwood production (table 12). More than half of the roundwood production (57.1 percent) was in the form of saw logs, making saw logs the main roundwood product produced in Oklahoma. Other roundwood products produced in Oklahoma included pulpwood, poles and posts, veneer logs and miscellaneous products which respectively account for 18.3, 15.2, 8.3 and 1.1 percent of the total roundwood production (table 1). Oklahoma's production of roundwood supplied a total of 122 wood-using mills. Ninety-seven of these mills were operating in Oklahoma in 1984. This number is up from 1978's 81 mills, but still below the 101 and 118 mills operating in 1975 and 1972 respectively. Most of the mills operating in 1984 were located in the eastern half of the state (fig. 1).

## SAW LOGS

Oklahoma's saw-log production has remained relatively stable over the last three canvasses (fig. 2). The 1984 production of 186.3 million board feet amounted to a minor decline of 1.2 percent from 1978's production of 188.6 million board feet. Softwoods made up 70.6 percent of the saw-log volume; of which 86.2 percent was shortleaf pine. Red and white oaks accounted for 61.4 percent of the hardwood saw-log volume (table 2). Most of the softwood saw-log production, 98.1 percent, came from the three southeastern counties of Le Flore, McCurtain, and Pushmataha. These same three counties only accounted for 68.4 percent of the hardwood saw-log production (table 6).

In 1984, Oklahoma's sawmills received 177.8 million board feet of saw logs (table 7). Large sawmills (those with an output of at least 3 million board feet) processed 96.9 percent of the softwood and 58.9 percent of the hardwood receipts for a total of 84.9 percent of all saw-log receipts. Over the years, the percentage of saw logs being received by large sawmills had been increasing. In 1972, large sawmills received 83 percent of the saw-log volume. In 1975 and 1978, this percentage increased to 87 and 90 percent of the saw-log receipts. Approximately one-half of the saw logs logged and remaining in Oklahoma crossed county lines before being processed. This is another indication of the dominance of large sawmills. Large sawmills tend to reach out into surrounding counties to maintain saw-log inventories; while small sawmills generally draw from their own counties. Soft-

Dennis M. May is Forester, Southern Forest Experiment Station Forest Service—USDA, Starkville, MS, in cooperation with the Oklahoma Division of Forestry.

wood saw logs accounted for 78 percent of all large sawmill receipts, while hardwood saw logs accounted for 86 percent of small sawmill receipts.

The number of sawmills operating in Oklahoma has fluctuated over the past 12 years. In 1972, 103 sawmills were operating. This number fell to 83 in 1975 and fell again in 1978 to 66 mills. In 1984, a total of 84 sawmills were in operation. Since the number of large sawmills is relatively small and has increased from 7 to 10 in the last 12 years, most of the fluctuation in the number of sawmills can be attributed to the opening and closing of small sawmills in response to local and short-term market conditions.

## VENEER

Continuing a downward trend in veneer-log production over the past 12 years, Oklahoma produced 29.3 million board feet of veneer logs in 1984, a decrease of 20.6 percent from 1978's production of 36.9 million board feet (fig. 2). Softwoods made up 98.2 percent of the total production, of which 85.0 percent was in shortleaf pine. Walnut and pecan veneer logs accounted for 98.8 percent of the hardwood production (table 2). The same three counties that produced the majority of saw-log volume also produced the majority of veneer-log volume. Le Flore, McCurtain, and Pushmataha counties collectively accounted for 98.2 percent of all veneer-log production (table 11).

## PULPWOOD

Oklahoma's production of roundwood to supply the pulp and paper industry has fallen sharply since 1978 (fig. 2). In 1978, Oklahoma imported 297,066 cords of pulpwood and produced 348,752 cords of pulpwood of which only 63,177 cords were exported. In contrast, Oklahoma produced 125,388 cords of pulpwood in 1984, all of which was exported out of state (table 5). Most of this decline in roundwood pulpwood production and receipts can be attributed to the increased use of wood residues by the State's pulpmills. However, some of the decline is also due to roundwood chips from merchandising operations being reported as byproducts by the receiving mills. Of the roundwood supplied, 58.7 percent was softwood and 41.3 percent was hardwood (table 2). All of the pulpwood came from southeastern counties (table 8).

## POLES AND POSTS

A general upward trend in Oklahoma's pole and post production can be seen in figure 2. However, 1984's production of 9.1 million pieces is 5.9 percent lower than 1978's production of 9.7 million pieces (table 1). This discrepancy can be attributed to the relative proportions of poles to posts between the two canvasses. More poles were produced in 1984 than in 1978, thus increasing the cubic foot volume produced. The entire pole and post production was in softwoods, with shortleaf accounting for 90.5 percent of the production (table 2). The three southeastern counties of Choctaw, McCurtain and Pushmataha accounted for 96.3 percent of the production (table 9).

## MISCELLANEOUS

There has been a slight upturn in the volume of roundwood supplied for miscellaneous products, which had been declining since 1972 (fig. 2). The 1984 production of 622 thousand cubic feet of roundwood used for furniture and handle stock, excelsior bolts, charcoal, or firewood was 2.5 times the production in 1978, but still only 28.2 percent of the 1972 production. Hardwoods accounted for 86.5 percent of the total production, of which 82.7 percent was in ash and oak. Shortleaf and redcedar made up the softwood volume (table 2). Approximately 60 percent of the total volume produced came from the counties of Le Flore and Pushmataha (table 10).

## BYPRODUCTS

In the conversion of roundwood into primary products, Oklahoma's forest industries generated a total of 46.7 million cubic feet of wood residues. Coarse residues made up 81.4 percent of the volume and fine residues made up the remainder. The milling of saw and veneer logs generated 98.0 percent of the coarse residues and 91.8 percent of the fine residues. The production of poles, posts, and miscellaneous products generated the remainder (table 3). Oklahoma's forest industries converted 99.1 percent of their coarse residues and 86.2 percent of their fine residues into byproducts (fig. 7). Most of the coarse byproducts, 96.9 percent, were used as a source of fiber by the pulp and paper industry. Charcoal, fuel, and miscellaneous uses made up the remaining coarse byproducts volume. The majority of fine byproducts, 60.9 percent, was burned as fuel. However, a large portion of the fine byproducts, 32.7 percent, was also used as a source of pulping fiber. The remainder was used for miscellaneous products, mostly animal bedding. A total of 1.55 million cubic feet of residues went unused or were burned as waste. Seventy-seven percent of the unused volume was in fine residues (table 4). The production of primary wood products also generated 283,899 green tons of bark, of which 76.8 percent was softwood and 23.2 percent was hardwood (table 15).

Figure 1.—*Primary wood using mills in Oklahoma, 1984.*

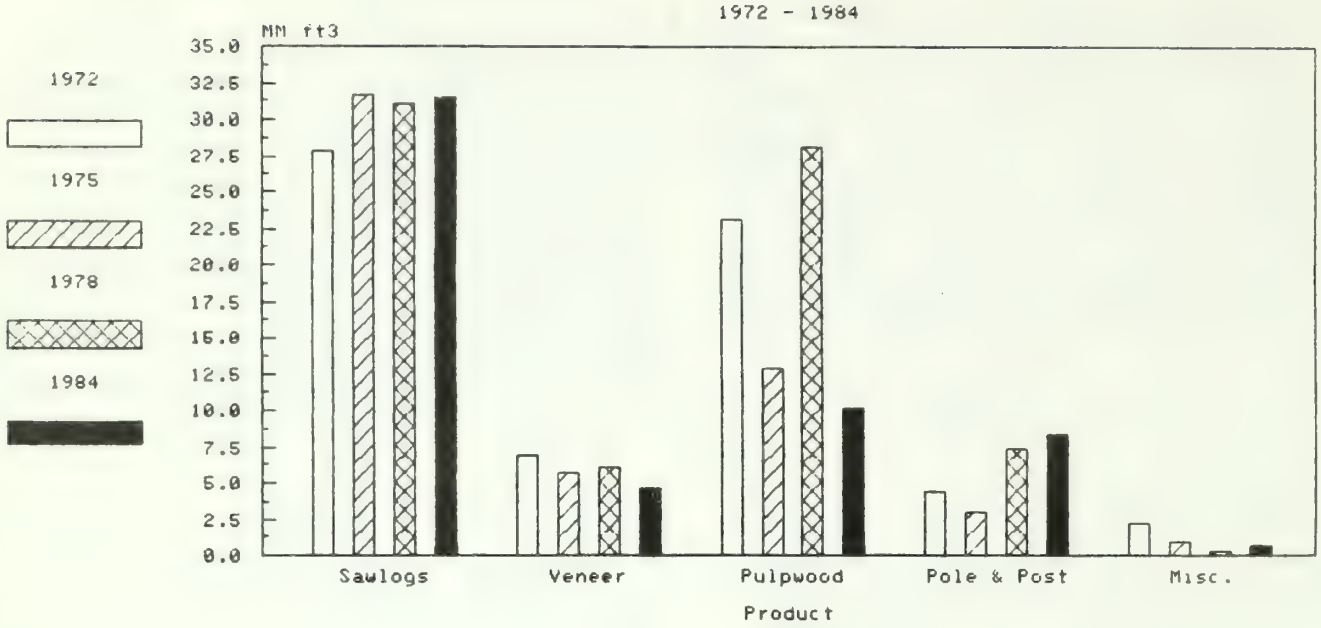


Figure 2.—*Output of industrial roundwood.*

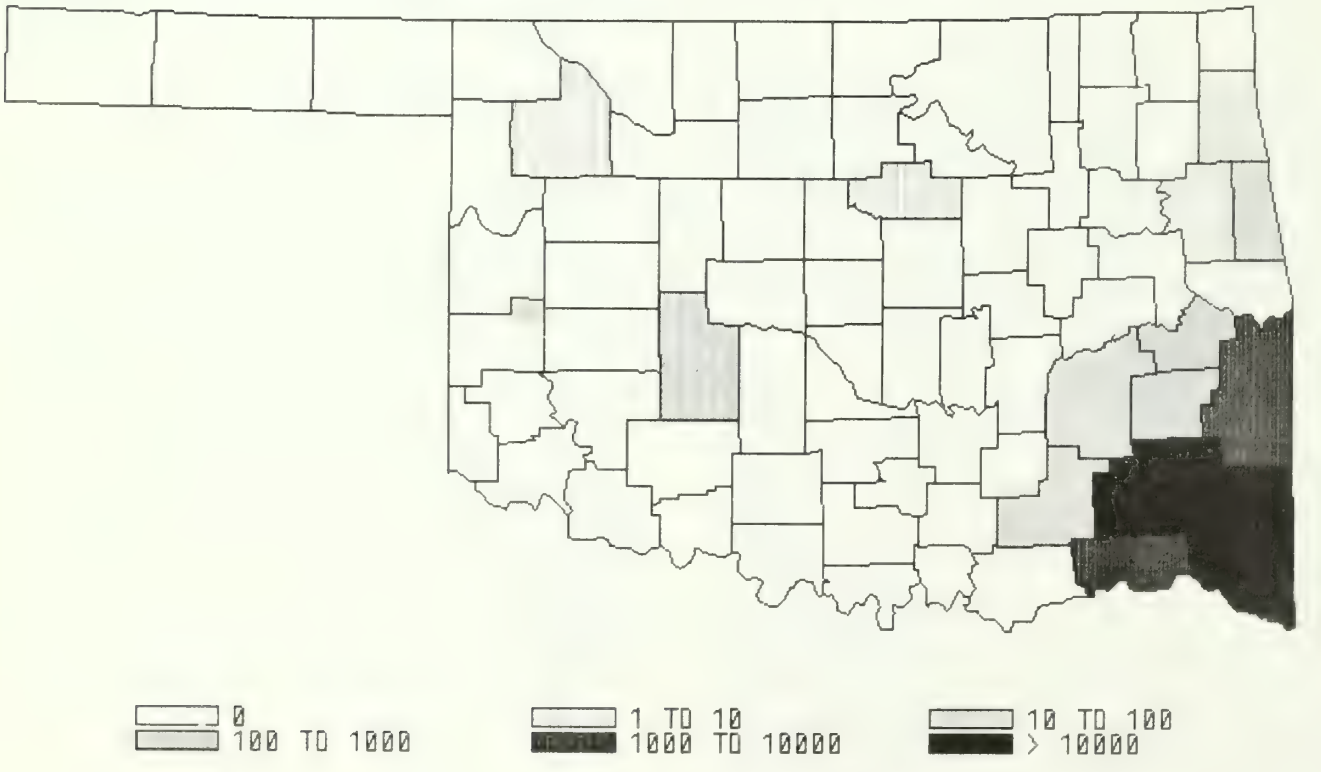


Figure 3.—*Softwood production by county (thousand cubic feet).*

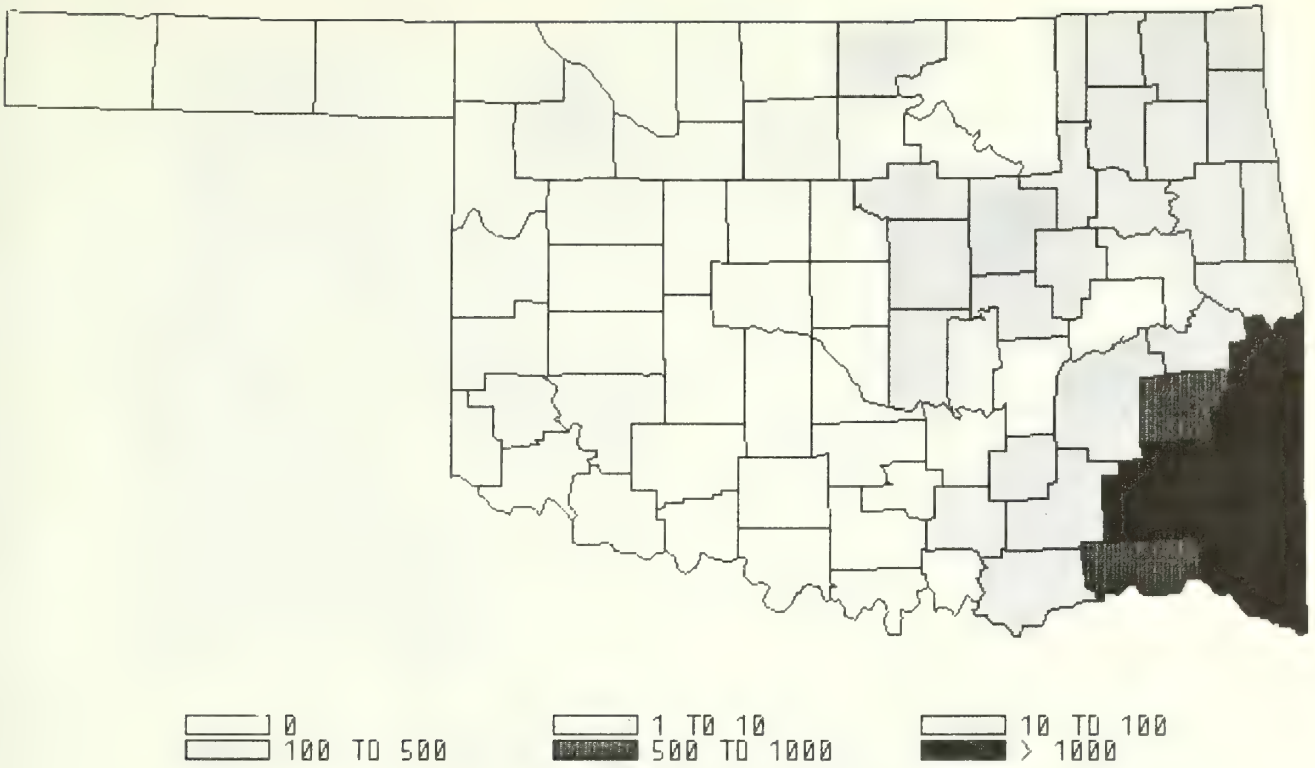


Figure 4.—*Hardwood production by county (thousand cubic feet).*

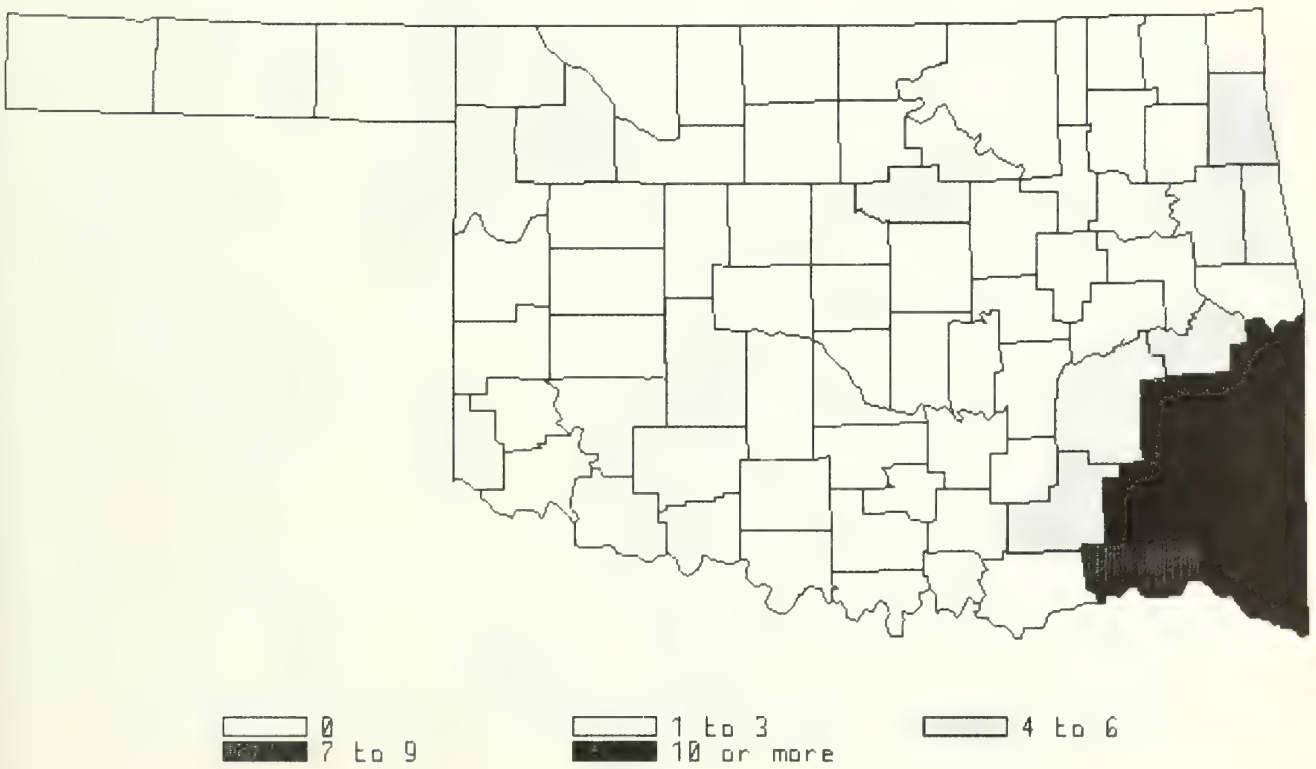


Figure 5.—*Competition for wood resources (number of mills drawing softwood by county).*

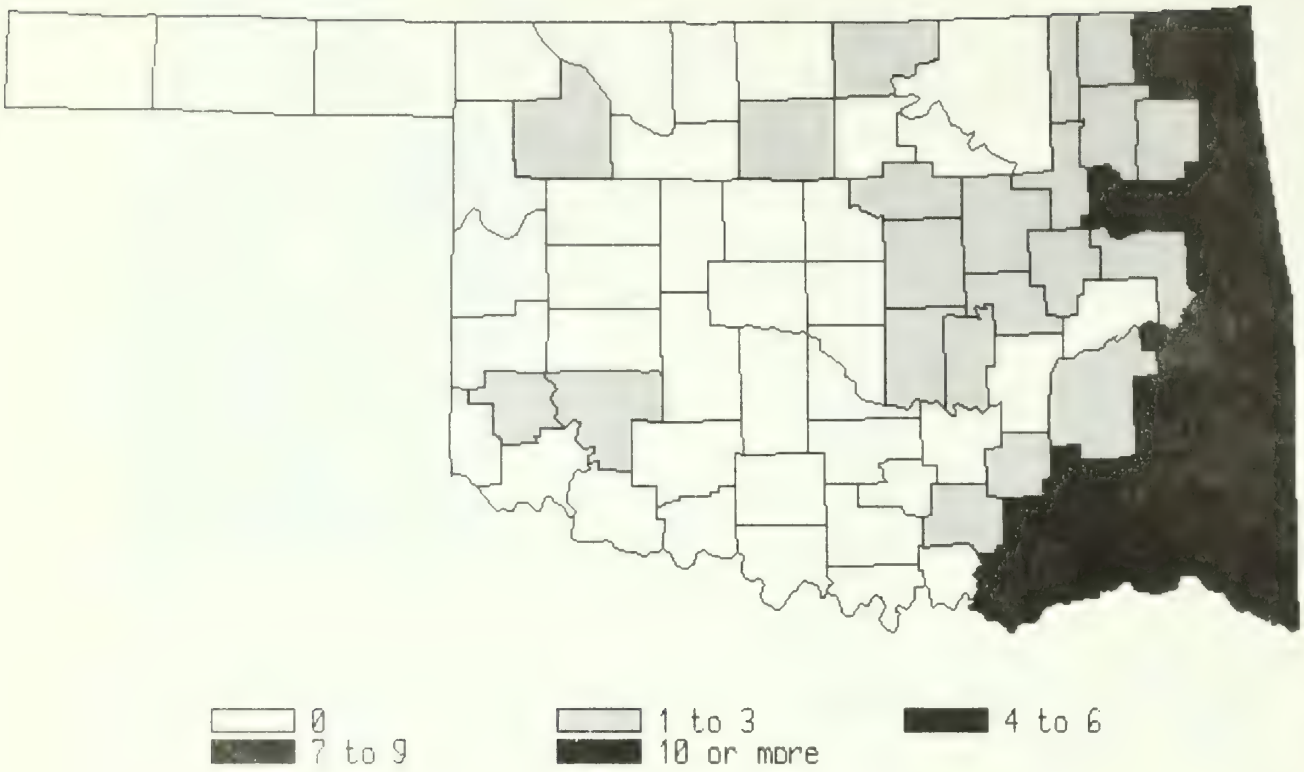


Figure 6.—*Competition for wood resources (number of mills drawing hardwood by county).*

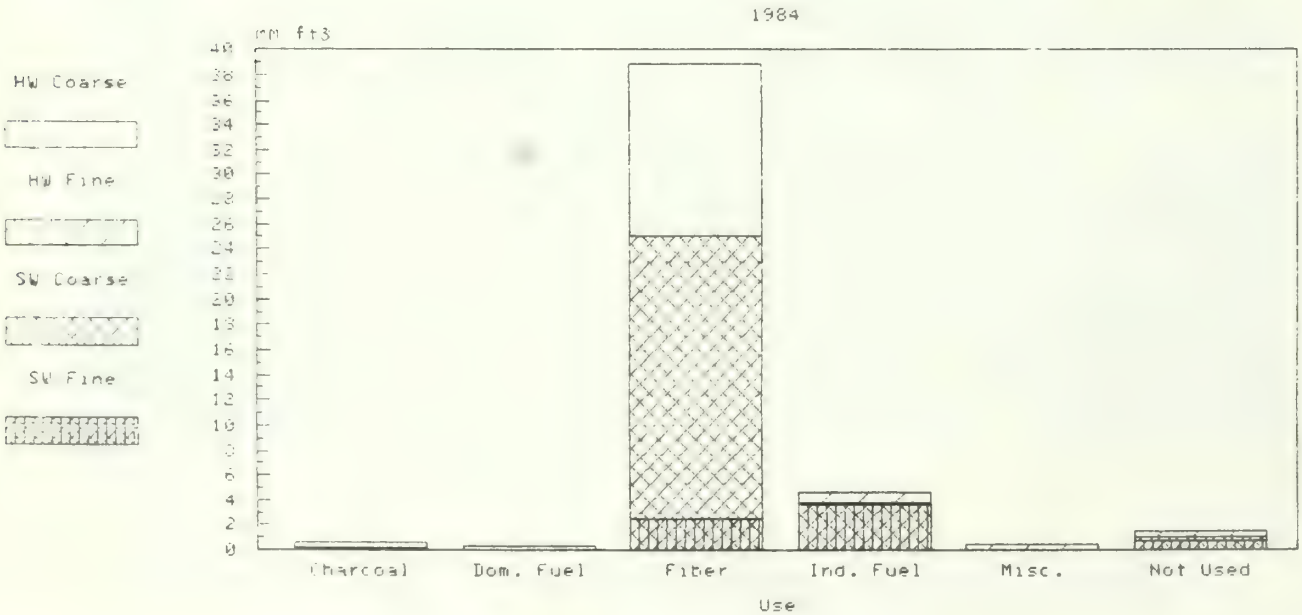


Figure 7.—*Use of wood residues.*

Table 1.—*Volume of industrial roundwood by product*

| Product | All species | Softwood | Hardwood | All species | Softwood | Hardwood |
|---|---|---|---|---|---|---|
| | *Standard units* | | | *M ft³* | | |
| Veneer[1] | 29305 | 28785 | 520 | 4589 | 4502 | 87 |
| Saw logs[1] | 186330 | 131602 | 54728 | 31607 | 22254 | 9353 |
| Pulpwood[2] | 125380 | 73567 | 51813 | 10104 | 5959 | 4145 |
| Poles & posts[3] | 9113 | 9113 | 0 | 8405 | 8405 | 0 |
| Miscellaneous[4] | 622 | 84 | 538 | 622 | 84 | 538 |
| Total | | | | 55327 | 41205 | 14123 |

[1]M fbm International 1/4-inch rule.
[2]Cords.
[3]M pieces.
[4]M ft³.

Table 2.—*Volume of industrial roundwood by species*

| Species group | Species | Saw logs[1] | Veneer[1] logs | Pulpwood[2] | Poles and[3] posts | Misc.[4] products |
|---|---|---|---|---|---|---|
| | | *Standard units* | | | | |
| Hardwoods | Ash | 1487 | 0 | 0 | 0 | 154 |
| | Birch | 1 | 0 | 0 | 0 | 0 |
| | Blackgum | 2080 | 0 | 0 | 0 | 0 |
| | Cottonwood | 1453 | 0 | 0 | 0 | 10 |
| | Elm | 5452 | 0 | 0 | 0 | 18 |
| | HW Pulp | 0 | 0 | 51813 | 0 | 0 |
| | Hackberry | 413 | 0 | 0 | 0 | 0 |
| | Hickory | 3620 | 0 | 0 | 0 | 24 |
| | Maple | 235 | 0 | 0 | 0 | 0 |
| | Other | 3 | 0 | 0 | 0 | 0 |
| | Pecan | 450 | 204 | 0 | 0 | 12 |
| | Red Oaks | 21630 | 0 | 0 | 0 | 162 |
| | Sweetgum | 4244 | 0 | 0 | 0 | 0 |
| | Sycamore | 471 | 0 | 0 | 0 | 28 |
| | Walnut | 1236 | 310 | 0 | 0 | 0 |
| | White Oaks | 11951 | 5 | 0 | 0 | 129 |
| | Total | 54728 | 520 | 51813 | 0 | 538 |
| Softwoods | Loblolly | 18036 | 4318 | 0 | 869 | 0 |
| | Red Cedar | 172 | 0 | 0 | 0 | 32 |
| | SW Pulp | 0 | 0 | 73567 | 0 | 0 |
| | Shortleaf | 113394 | 24467 | 0 | 8245 | 52 |
| | Total | 131602 | 28785 | 73567 | 9113 | 84 |
| | All species | 186330 | 29305 | 125380 | 9113 | 622 |

[1]M fbm International 1/4-inch rule.
[2]Cords.
[3]M pieces.
[4]M ft³.

Table 3.—*Volume of plant residues produced from roundwood products*

| Product | All species | | Softwood | | Hardwood | |
|---|---|---|---|---|---|---|
| | Fine | Coarse | Fine | Coarse | Fine | Coarse |
| | *M ft³* | | | | | |
| Saw logs & veneer | 7957 | 37250 | 6242 | 22632 | 1715 | 14618 |
| Poles & posts | 657 | 430 | 657 | 430 | 0 | 0 |
| Miscellaneous | 53 | 329 | 0 | 0 | 53 | 329 |
| All products | 8667 | 38009 | 6899 | 23062 | 1768 | 14947 |

Table 4.—*Volume of byproducts produced from plant residues*

| Use | All species | | Softwood | | Hardwood | |
|---|---|---|---|---|---|---|
| | Fine | Coarse | Fine | Coarse | Fine | Coarse |
| | *M ft³* | | | | | |
| Charcoal | 0 | 632 | 0 | 121 | 0 | 511 |
| Domestic fuel | 0 | 368 | 0 | 20 | 0 | 348 |
| Fiber products | 2446 | 36486 | 2446 | 22486 | 0 | 14000 |
| Industrial fuel | 4552 | 138 | 3654 | 138 | 898 | 0 |
| Miscellaneous | 472 | 28 | 23 | 1 | 449 | 27 |
| Total used | 7470 | 37652 | 6123 | 22766 | 1347 | 14886 |
| Not used | 1196 | 357 | 776 | 295 | 420 | 62 |
| Total residues | 8667 | 38009 | 6899 | 23062 | 1768 | 14947 |

Table 5.—*Movement of industrial roundwood by product*

| Product | Out-of-state receipts | Logged and remained in state | Logged and shipped out of state | Total receipts | Total production |
|---|---|---|---|---|---|
| | *Standard units* | | | | |
| Saw logs & veneer[1] | 4555 | 202059 | 13576 | 206614 | 215635 |
| Pulpwood[2] | 0 | 0 | 125380 | 0 | 125380 |
| Poles & posts[3] | 0 | 6772 | 2342 | 6772 | 9113 |
| Miscellaneous[4] | 2 | 590 | 32 | 592 | 622 |

[1]M fbm International 1/4-inch rule.
[2]Cords.
[3]M pieces.
[4]M ft³.

Table 6. —*Saw-log production by county*

| County | All species | Softwoods | Hardwoods |
|---|---|---|---|
| | *M fbm*[1] | | |
| Adair | 338 | 12 | 325 |
| Atoka | 1699 | 383 | 1316 |
| Bryan | 617 | 0 | 617 |
| Caddo | 138 | 138 | 0 |
| Cherokee | 255 | 11 | 244 |
| Choctaw | 2316 | 379 | 1937 |
| Coal | 1206 | 0 | 1206 |
| Craig | 687 | 0 | 687 |
| Creek | 929 | 0 | 929 |
| Delaware | 1683 | 45 | 1638 |
| Garfield | 7 | 0 | 7 |
| Greer | 8 | 0 | 8 |
| Haskell | 2357 | 502 | 1855 |
| Johnston | 30 | 0 | 30 |
| Kay | 162 | 0 | 162 |
| Kiowa | 2 | 0 | 2 |
| Latimer | 1815 | 862 | 954 |
| Le Flore | 21970 | 17595 | 4374 |
| Lincoln | 130 | 0 | 130 |
| Mayes | 565 | 0 | 565 |
| McCurtain | 83486 | 56821 | 26665 |
| Muskogee | 4 | 0 | 4 |
| Okfuskee | 105 | 0 | 105 |
| Okmulgee | 568 | 0 | 568 |
| Ottawa | 1096 | 0 | 1096 |
| Payne | 109 | 23 | 86 |
| Pittsburg | 1314 | 125 | 1189 |
| Pottawatomie | 102 | 0 | 102 |
| Pushmataha | 61111 | 54703 | 6408 |
| Rogers | 577 | 0 | 577 |
| Seminole | 33 | 0 | 33 |
| Sequoyah | 244 | 0 | 244 |
| Tulsa | 277 | 0 | 277 |
| Wagoner | 176 | 0 | 176 |
| Washington | 208 | 0 | 208 |
| Woodward | 4 | 2 | 3 |
| All counties | 186330 | 131602 | 54728 |

[1]International 1/4-inch rule.

Table 7.—*Saw-log movement*

| County | Logged and remained in county | Outgoing shipments | Incoming shipments | Total log receipts |
|---|---|---|---|---|
| | *M fbm*[1] | | | |
| Adair | 126 | 212 | 40 | 166 |
| Atoka | 1652 | 47 | 4028 | 5680 |
| Bryan | 487 | 130 | 859 | 1346 |
| Cherokee | 49 | 206 | 0 | 49 |
| Choctaw | 807 | 1510 | 418 | 1225 |
| Delaware | 914 | 769 | 2322 | 3236 |
| Haskell | 33 | 2324 | 89 | 122 |
| Latimer | 794 | 1021 | 2919 | 3713 |
| Le Flore | 4770 | 17200 | 1334 | 6104 |
| McCurtain | 77480 | 6006 | 69110 | 146591 |
| Okmulgee | 568 | 0 | 1108 | 1675 |
| Ottawa | 804 | 292 | 2526 | 3330 |
| Pushmataha | 1670 | 59441 | 1061 | 2731 |
| Sequoyah | 93 | 151 | 1 | 94 |
| All others[2] | 1017 | 5758 | 751 | 1768 |
| All counties | 91263 | 95067 | 86566 | 177829 |

[1]International 1/4-inch rule.
[2]Counties with less than 3 mills.

Table 8. —*Pulpwood production by county*

| County | All species | Softwoods | Hardwoods |
|---|---|---|---|
| | *Cords* | | |
| Choctaw | 8500 | 3060 | 5440 |
| Haskell | 933 | 933 | 0 |
| Latimer | 10947 | 5636 | 5311 |
| Le Flore | 25205 | 14834 | 10371 |
| McCurtain | 39374 | 28599 | 10775 |
| Pushmataha | 40421 | 20505 | 19916 |
| All counties | 125380 | 73567 | 51813 |

Table 9.—*Pole and post production by county*[1]

| County | Softwoods |
|---|---|
| | *M pieces* |
| Atoka | 2 |
| Choctaw | 3361 |
| Latimer | 1 |
| Le Flore | 335 |
| McCurtain | 3195 |
| Pushmataha | 2220 |
| All counties | 9113 |

[1]Counties with negligible output are omitted.

Table 10. —*Production of miscellaneous products*[1] *by county*

| County | All species | Softwoods | Hardwoods |
|---|---|---|---|
| | | *M ft*$^3$ | |
| Adair | 22 | 14 | 7 |
| Atoka | 22 | 0 | 22 |
| Bryan | 17 | 0 | 17 |
| Choctaw | 58 | 0 | 58 |
| Coal | 7 | 0 | 7 |
| Delaware | 14 | 0 | 14 |
| Johnston | 7 | 0 | 7 |
| Latimer | 45 | 3 | 43 |
| Le Flore | 244 | 32 | 212 |
| Mayes | 2 | 0 | 2 |
| McCurtain | 22 | 0 | 22 |
| Pushmataha | 124 | 36 | 88 |
| Sequoyah | 22 | 0 | 22 |
| Wagoner | 18 | 0 | 18 |
| All counties | 622 | 84 | 538 |

[1]Includes furniture and handle stock, excelsior bolts, charcoal wood, and firewood.

Table 11.—*Veneer production by county*

| County | All species |
|---|---|
| | *M fbm*[1] |
| Craig | 77 |
| Haskell | 3 |
| Kay | 102 |
| Le Flore | 2447 |
| McCurtain | 11658 |
| Nowata | 89 |
| Ottawa | 38 |
| Payne | 109 |
| Pushmataha | 14680 |
| Washington | 102 |
| All counties | 29305 |

[1]International 1/4-inch rule.

Table 12. —*Industrial roundwood production by county*[1]

| County | All species | Softwoods | Hardwoods |
|---|---|---|---|
| | | *M ft*$^3$ | |
| Adair | 79 | 16 | 63 |
| Atoka | 317 | 71 | 247 |
| Bryan | 122 | 0 | 122 |
| Caddo | 23 | 23 | 0 |
| Cherokee | 43 | 2 | 42 |
| Choctaw | 3232 | 2408 | 824 |
| Coal | 213 | 0 | 213 |
| Craig | 131 | 0 | 131 |
| Creek | 159 | 0 | 159 |
| Delaware | 302 | 8 | 294 |
| Garfield | 1 | 0 | 1 |
| Greer | 1 | 0 | 1 |
| Haskell | 479 | 161 | 317 |
| Johnston | 12 | 0 | 12 |
| Kay | 45 | 0 | 45 |
| Latimer | 1238 | 608 | 630 |
| Le Flore | 6690 | 4900 | 1789 |
| Lincoln | 22 | 0 | 22 |
| Mayes | 98 | 0 | 98 |
| McCurtain | 21857 | 16416 | 5441 |
| Muskogee | 1 | 0 | 1 |
| Nowata | 15 | 0 | 15 |
| Okfuskee | 18 | 0 | 18 |
| Okmulgee | 97 | 0 | 97 |
| Ottawa | 194 | 0 | 194 |
| Payne | 37 | 4 | 33 |
| Pittsburg | 224 | 21 | 203 |
| Pottawatomie | 18 | 0 | 18 |
| Pushmataha | 19342 | 16565 | 2777 |
| Rogers | 99 | 0 | 99 |
| Seminole | 6 | 0 | 6 |
| Sequoyah | 64 | 0 | 64 |
| Tulsa | 47 | 0 | 47 |
| Wagoner | 48 | 0 | 48 |
| Washington | 53 | 0 | 53 |
| Woodward | 1 | 0 | 0 |
| All counties | 55327 | 41205 | 14123 |

[1]Counties with negligible output are omitted.

Table 13.—*Volume of plant byproducts by county*

| County | All species | | Softwood | | Hardwood | |
|---|---|---|---|---|---|---|
| | Fine | Coarse | Fine | Coarse | Fine | Coarse |
| | *M ft³* | | | | | |
| Adair | 2 | 5 | 0 | 0 | 2 | 5 |
| Atoka | 867 | 2041 | 865 | 84 | 2 | 1957 |
| Bryan | 37 | 50 | 3 | 4 | 34 | 46 |
| Cherokee | 2 | 2 | 0 | 0 | 2 | 2 |
| Choctaw | 58 | 366 | 0 | 11 | 58 | 355 |
| Delaware | 69 | 105 | 1 | 1 | 69 | 104 |
| Latimer | 1 | 137 | 1 | 38 | 0 | 99 |
| Le Flore | 190 | 1271 | 96 | 139 | 94 | 1132 |
| McCurtain | 4478 | 32882 | 3559 | 22175 | 919 | 10707 |
| Okmulgee | 55 | 69 | 0 | 0 | 55 | 69 |
| Ottawa | 64 | 135 | 4 | 11 | 59 | 123 |
| Pushmataha | 7 | 484 | 0 | 256 | 7 | 228 |
| Sequoyah | 3 | 4 | 0 | 0 | 3 | 4 |
| All other[1] | 1637 | 102 | 1594 | 47 | 43 | 55 |
| All counties | 7470 | 37652 | 6123 | 22766 | 1347 | 14886 |

[1]Counties with less than 3 mills or less than 1 M ft³.

Table 14.—*Volume of unused plant residues by county*

| County | All species | | Softwood | | Hardwood | |
|---|---|---|---|---|---|---|
| | Fine | Coarse | Fine | Coarse | Fine | Coarse |
| | *M ft³* | | | | | |
| Adair | 3 | 2 | 0 | 0 | 3 | 2 |
| Atoka | 12 | 11 | 4 | 4 | 8 | 7 |
| Bryan | 18 | 13 | 0 | 0 | 18 | 13 |
| Choctaw | 453 | 216 | 438 | 210 | 15 | 5 |
| Delaware | 39 | 30 | 1 | 1 | 39 | 30 |
| Haskell | 5 | 6 | 4 | 6 | 0 | 0 |
| Latimer | 122 | 0 | 25 | 0 | 97 | 0 |
| Le Flore | 7 | 8 | 7 | 8 | 1 | 0 |
| McCurtain | 294 | 55 | 126 | 55 | 168 | 0 |
| Ottawa | 46 | 4 | 4 | 0 | 42 | 4 |
| Pushmataha | 190 | 11 | 162 | 11 | 28 | 0 |
| All Other[1] | 7 | 0 | 5 | 0 | 2 | 0 |
| All counties | 1196 | 357 | 776 | 295 | 420 | 62 |

[1]Counties with less than 3 mills or less than 1 M ft³.

Table 15. —*Bark production by county*

| County | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Tons* | | |
| Adair | 191 | 0 | 191 |
| Atoka | 6254 | 490 | 5764 |
| Bryan | 1752 | 57 | 1694 |
| Cherokee | 56 | 0 | 56 |
| Choctaw | 74841 | 72765 | 2076 |
| Delaware | 3747 | 28 | 3720 |
| Haskell | 328 | 316 | 12 |
| Latimer | 3913 | 631 | 3282 |
| Le Flore | 5637 | 2438 | 3198 |
| McCurtain | 159938 | 122456 | 37482 |
| Okmulgee | 1926 | 0 | 1926 |
| Ottawa | 3726 | 183 | 3542 |
| Pushmataha | 19621 | 18421 | 1200 |
| Sequoyah | 108 | 0 | 108 |
| All other[1] | 1859 | 303 | 1556 |
| All counties | 283899 | 218089 | 65810 |

[1]Counties with less than 3 mills.

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May, Dennis M. Oklahoma forest industries, 1984. Resourc. Bull. SO-109. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1986. 11 p.

This publication reports the findings of a 100 percent canvass of Oklahoma's forest industries in 1984. The production and receipts of industrial roundwood are reported by product, species group, and county. The production and disposition of mill residues generated by Oklahoma's forest industries are also reported. Roundwood and residue production changes between canvasses are followed and discussed.

**Additional keywords:** Forest industry, roundwood, products, residues, byproducts.

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# Incidence and Impact of Damage to Tennessee's Timber, 1982

Paul A. Mistretta, Carl V. Bylin, and Roger Baker

## SUMMARY

The Southern Forest Experiment Station in Starkville, MS, periodically inventories and evaluates forest resources in Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Puerto Rico, Tennessee, and Texas. Survey data were collected in 1979, 1980, 1981, and 1982 by the Forest Inventory and Analysis work unit of the Southern Forest Experiment Station as part of the fifth inventory of Tennessee's forests. Considerably more information was gathered for this inventory than in previous data collections, making possible the publication of this specialized report summarizing information on agents that damage timber in Tennessee's forests.

# Incidence and Impact of Damage to Tennessee's Timber, 1982

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## INTRODUCTION

During the periodic inventory of Tennessee's forests conducted from 1979 to 1982 by the Southern Forest Experiment Station, Starkville, MS, damage to live trees on sample plots was noted, and, where possible, a cause or damaging agent was specified. Since a plot is visited only once during the survey, and that visit can be at any time of the year, only agents that produce durable symptoms or signs of damage were reported.

Since the data reported here were gathered by people trained and experienced in forest inventory, not entomology or pathology, qualified people from Region 8, State and Private Forestry, Forest Pest Management, trained the field crews to use a damage-identification handbook (Anderson et al. 1980) before going out on the field survey. Specimen kits and forms were provided to crew members for submission of damage samples they might be unable to identify in the field. During the survey, field checks were made to ensure the accuracy and consistency of the recording and collection of the data.

Agents selected to be included in the survey were required to be (1) easily identifiable, (2) present year-round, and (3) present on trees at least 1 inch in diameter at breast height (d.b.h.). Therefore, small trees with problems such as brown spot and trees of all sizes with damage such as defoliation (which is not apparent in winter) are not included in this report.

There are several reasons why this report does not completely assess the incidence and impact of all damage observed in Tennessee's forests. First, damage is caused by a wide variety of agents; some are easily recognized, others are more difficult to identify. The data presented here for damaging agents that are easily identified and persistent, such as stem and branch rust, are reliable. The data for damaging agents that are more difficult to recognize, such as root rot, are underestimated.

Second, certain types of damage can only be observed during part of the year; these have not been included in this survey in a dedicated category. For example, defoliation caused by insects is only evident at the time of year during which trees normally have leaves, and insects are active. Since survey crews work year-round, defoliation data could not be consistently collected and is recorded only as "other insect" when observed during the summer.

Third, some damaging agents cause trees to die rapidly; these trees were recorded in a mortality (not a damage) category. For instance, trees attacked by bark beetles in summer tend to die rapidly. If the survey crew found a tree with evidence of bark beetle activity, there was a good chance that it was already dead and was tallied as such. Thus, many bark beetle damaged trees would not be recorded in the "Bark Beetle" damage category.

And finally, this was the first survey by the Southern Station crews where these detailed damage codes were recorded. Some inconsistency was seen in the early application of the codes.

Data presented in this Bulletin were compiled for this report in a separate computer run. Similarity will be seen between acres of forest types, timber removals, and mortality by species when compared to numbers presented in "Forest Statistics for Tennessee Counties" (USDA For. Serv. 1982). Differences in accumulation, definition changes, and rounding will account for the differences in numbers presented.

In spite of these problems the survey gives a good picture of the relative incidence of the pre-selected, easily recognized damage types (or agents) that persist year round.

## SAMPLING PROCEDURE

The sampling procedure used for this inventory was designed to provide reliable statistics on a statewide basis or for large groups of counties. It also accurately summarizes species having a relatively large total volume in the State. However, errors associated with relatively minor species, like cottonwood or pondcypress, exceed those for such major species as loblolly pine.

Paul Mistretta is a Supervisory Plant Pathologist with Southern Region, Forest Pest Management, Pineville, LA. Carl V. Bylin is a Forester with Southern Forest Experiment Station, USDA Forest Service, Starkville, MS. Roger Baker was formerly a Range Scientist, Southern Forest Experiment Station, Forest Inventory and Analysis, Starkville, MS. (Currently, Soil Scientist, Southern Forest Experiment Station, Forest Hydrology Laboratory, Oxford, MS.)

The data on forest acreage and timber volume in this report were obtained by a sampling method involving a forest-nonforest classification on aerial photographs linked to ground measurements of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. In Tennessee, 123,516 photographic classifications were made and 6,941 ground locations were visited. The initial estimates of forest area obtained from aerial photographs were adjusted on the basis of the ground check.

A cluster of 10 variable-radius plots was installed at each ground sample location. Each sample tree on the variable-radius plots represented 3.75 square feet of basal area per acre. Trees less than 5.0 inches in diameter were tallied on fixed-radius plots around the plot centers. Trees on a subsample of plots were measured in detail to obtain data for calculating timber volumes.

Plots established during the fourth survey of Tennessee (Murphy 1972) were remeasured during this (the fifth) survey to determine the elements of change, and these remeasured plots are the basis for estimating growth, mortality, removals, and changes in land use.

## COMPUTATION METHODS

Limits on size classes of trees were: saplings, 1.0 to 4.9 inches d.b.h.; softwood poles, 5.0 to 8.9 inches d.b.h.; hardwood poles, 5.0 to 10.9 inches d.b.h.; softwood sawtimber ≥9.0 inches d.b.h.; and hardwood sawtimber ≥11.0 inches d.b.h. Volume equations based on measurements of standing trees in Tennessee were used to compute merchantable and total cubic volume.

Percentage of loss in an individual tree was estimated in the field. Volume loss by pest/tree combination and total volume loss attributable to all agents damaging a species were subsequently computed. Data on percent incidence of damage do not imply total economic loss; only a part of the volume in cull would fail to qualify for some commercial use, such as firewood. Cull includes loss due to crooks, limbs, decay, missing wood, sweep, large forks, and sections of the bole too rough to be used as pulpwood or sawtimber. The volume loss was determined by totaling the volume of cull by species.

Mortality could not be attributed to specific damaging agents because it was often impossible to determine the cause of death. In many cases, a tree which had been tallied in the fourth survey 10 years earlier (Murphy 1972) was simply missing. It was possible, however, to determine volume loss due to mortality for each tree species on each plot. Accumulating total volume per dead tree by tree species resulted in the total volume loss for poles and sawtimber by tree species. Economic impact was determined by multiplying the total wood fiber and quality loss for each tree species by the stumpage value per unit. These dollar estimates were taken from an average of a sample of timber sales in Tennessee in 1982.

## INCIDENCE OF DAMAGING AGENTS

Tennessee has 12,863,200 acres of commercial forest, and most of the acreage is in the oak-hickory, mixed hardwood, oak, Virginia pine, and Virginia pine/hardwood forest types. Table 1 shows the acreage in the various stand-size classes and forest types. The remaining tables in this report show how much of the timber resource was damaged and the agents responsible for the damage. Remember, the term "damage" refers to an injury the tree has suffered. A damaged tree is still living. The term "cull" as used in this report includes damage due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of the bole that are too rough to be utilized as pulpwood or as sawtimber.

Tables 2 and 3 show percentage of trees damaged, by size class and tree species. Overall, hardwoods had more damage than softwoods, and more sawtimber was damaged than poletimber or saplings. Eastern red cedar, Virginia pine, and shortleaf pine were the most abundant softwood species in Tennessee, and 25 percent or more of both poletimber- and sawtimber-size trees of all three species were damaged.

The percentage of saplings damaged was generally much higher for hardwoods than softwoods. In most hardwood species, 40 to 70 percent of the saplings were damaged. The most frequently damaged saplings were basswood and black walnut. Hardwood poletimber was damaged more often than saplings but less often than sawtimber. All of the cottonwood poletimber seen showed damage. The most frequently damaged hardwood sawtimber trees were beech, soft and hard maples, and blackgum. More than 70 percent of the trees in these species were damaged.

Table 4 shows the incidence of damage to various softwood hosts. The most common causes of softwood damage were suppression and stagnation, weather, and logging. These types of damage were reported for almost all of the softwoods. Fusiform (caused by *Cronartium quercuum* (Berk.) Miy. ex Shirai f. sp. *fusiforme*), comandra (caused by *Cronartium comandrae* Pk.), and eastern gall rust (caused by *Cronartium quercuum* (Berk.) Miy. ex Shirai f. sp. *quercuum*) are lumped into the category gall rusts. These rusts were recorded only if the gall was on or within 12 inches of the main stem. If galls farther out on limbs had been recorded, the reported incidence of rust would have been much greater. Incidence of these three diseases was significantly lower than expected, affecting less than 1 percent of the loblolly, shortleaf,

and Virginia pines. Basal defect, branch stubs, and dieback were also commonly reported on softwoods.

Bark beetles are considered to be the most serious insect pest of the pine in the Southeast; however, no bark beetle damage on live softwood trees was reported. The main reason for this is that this survey only reports damage to living trees, and most often bark beetles kill their host trees and dead trees were recorded as mortality.

Reported incidence of damage due to insects on both hardwoods and softwoods was very low. However, it is believed that insect damage is significantly underestimated due to the difficulty in diagnosing and evaluating incidence and severity of many types of insect-caused damage.

Table 5 shows the incidence of damage to hardwoods. All of the reportable problems were recorded during the survey. The most common problems observed in hardwoods were branch stubs, dieback, root rots, weather, and suppression and stagnation. Saplings of all hardwoods had some degree of branch stubs; basswood was the worst, with 5.5 percent of the saplings damaged. Damage from branch stubs increased with increased age. Incidence averaged 7.1 percent in poletimber and 8.2 percent in sawtimber. Saplings also had a high incidence of damage due to suppression and stagnation; this damage was reported for 13 of the 16 hardwoods. Mean (unweighted) incidence of damage to the 13 hardwoods was 12.1 percent for saplings; but, as expected, by the sawtimber stage this problem was reported for only 3 of the 16 hardwoods (unweighted mean incidence of .2 percent for the three species). Other diseases were reported at a very high level. With only one exception (cottonwood, a minor forest component), damage in this heterogeneous class ranged from 10 to 65 percent incidence. Other diseases is the primary complex which affects major forest species in the merchantable classes. Generally other diseases ranged from 5 to 15 percent for softwood and 10 to 25 percent for hardwood.

Among the minor forest species, an extremely high percentage (74.9 percent) of the cottonwood poletimber was damaged by weather. Basswood saplings were damaged by other diseases in 65.9 percent of the sample. There are, however, only three other hardwoods where incidence of a specific damaging agent exceeds 30 percent.

## MORTALITY, LOSSES TO CULL, QUALITY LOSS, AND ECONOMIC IMPACT

Annual mortality of softwood timber is shown in table 6. Softwood poletimber mortality was more than 65 percent of the annual volume of poletimber removals while sawtimber mortality represented approximately 25 percent of the annual sawtimber removal volume. For hardwoods the figures are approximately 50 percent for poletimber and 15 percent for sawtimber. The mortality figures shown in table 6 are the total for the resource and do not reflect any discounting for trees whose death represented no economic loss. Table 6 also shows the estimated volumes of cull for the major species groups in Tennessee. Annual timber removal figures are given to place the volume losses in perspective.

There are approximately 7.3 hardwoods for each softwood in the state. When volume loss is compared (softwood:hardwoods), however, both the sawtimber (4.3:1) and poletimber (4.4:1) ratios suggest a much more severe volume loss per unit in softwoods. Analysis of this loss showed that hardwood poletimber cull was significantly greater per unit than softwood cull (20.3:1.0), but softwood mortality per unit is greater in both sawtimber (2.9:1.0) and poletimber (2.8:1.0) classes. Cull in the sawtimber category approximates the population ratio (8.1:1.0 vs 7.3:1.0).

The economic impact of damaging agents is greatest in hardwood sawtimber, which showed an annual loss of about $16.5 million (table 7). Poletimber value loss is similar for both hardwood ($789 million) and for softwoods ($658 million) despite a major discrepancy in volume lost (64 $MMft^3$). This is a reflection of the skew of pole value in favor of softwood poletimber. Overall, 80 percent of all economic impact was in hardwoods, and about 93.5 percent of the total economic impact was in sawtimber-size trees.

## DAMAGING AGENTS, GROWTH DEFECTS, AND SYMPTOMS

The definitions presented under the subheadings Diseases, Growth Defects, Natural Phenomena, Animals and Birds, Insects, and Human Activities are those used in the field manual prepared by Anderson, et al. (1980). They describe the problems reported by the field crews.

### Diseases

*Fusiform Rust.*—Common host species: Slash, loblolly, and shortleaf pines. Symptoms and signs: Spindle-shaped galls formed on the stem or on branches within 12 inches (30.5 cm) of the bole. Older galls appear as cankers with sunken, rotten centers encircled by a callus ridge. Witches' brooms are common at galls. Bright orange spores are produced on the galls in the spring.

*Hardwood Cankers.*—Common host species: All hardwoods. Symptoms and signs: Dead, sunken area formed on the stem, frequently with annual callus ridges around the dead area.

*Littleleaf Disease.*—Common host species: Shortleaf and loblolly pines, but shortleaf is more suscepti-

ble. Symptoms and signs: Affected trees occur in groups. Short, yellow needles; reduced shoot growth; and large crops of under-sized cones are typical symptoms. Littleleaf disease usually occurs in trees growing on heavy clay soils with poor internal drainage.

*Pitch Canker.*—Common host species: Most southern pines, but primarily slash, loblolly, and shortleaf. Symptoms and signs: Flagging at branch ends, pitch flow from affected area, slight swelling on affected stems and twigs, crooks in main stem, and wilting of current candles are all symptoms of this disease.

*Root Rots.*—Common host species: All tree species. Symptoms and signs: Diseased trees, often with thin, tufted crowns, frequently occur in groups that usually contain dead or windthrown trees. Conks (fruiting bodies) of various fungi may be present on or near the bases of diseased trees. Root rots are more frequent in trees of reduced vigor, thinned stands, and in trees with butt or root injury. Trees with root rots are often subsequently attacked by bark beetles.

*Other Diseases.*—Common host species: All tree species. Symptoms and signs: All damage caused by diseases not identified in separate categories (e.g., red heart of pine, brown spot, and leaf diseases). Trees showing degrade caused by diseases are included in this category.

### Growth Defects

*Branch Stubs.*—Common host species: All tree species. Symptoms and signs: Branch holes or stubs greater than 4.0 inches in diameter on stems of trees 5.0 inches d.b.h. and larger or greater than 1.0 inch in diameter on stems of trees 1.0 to 4.9 inches d.b.h.

*Basal Defect.*—Common host species: All tree species. Symptoms and signs: Butt swelling, curls, V-shaped stump sprouts, frost seams, and low stubs below 4.5 feet are symptoms of basal defect.

*Dieback.*—Common host species: All hardwoods. Symptoms and signs: Tips of the branches die back. Initially, only a few branches are affected, but in advanced stages, entire branches die with the possibility of tree mortality. Dieback is frequently associated with stress caused by an unfavorable environment.

*Suppression and Stagnation.*—Common host species: All tree species. Symptoms and signs: Suppressed and stagnated trees are characterized by poor form and small crowns. Suppressed trees are overtopped and receive indirect sunlight. Stagnated trees have thin foliage despite receiving some direct sunlight. Stagnation is usually associated with poor growing sites or overstocking.

*Form (damaging).*—Common host species: All tree species. Symptoms and signs: All trees 5.0 inches d.b.h. and larger that are deformed due to unknown causes.

### Natural Phenomena

*Fire.*—Common host species: All tree species. Symptoms and signs: Fire scars are usually at the base of the stem and are widespread in the stand. The scars are usually on the uphill side of the tree, and signs of charring are generally present on the stem.

*Flooding.*—Common host species: All tree species. Symptoms and signs: Yellowing and curling downward of leaves, premature leaf fall, branch and top dieback, tree mortality, and high water and silt marks on tree boles are the most common effects of flooding.

*Lightning.*—Common host species: All tree species. Symptoms and signs: Lightning causes bark stripping or cracking, with damage running from the strike point to the ground in a straight or spiral line. Often, the foliage will fade due to root damage or top breakage. Bark beetles often invade struck trees.

*Weather.*—Common host species: All tree species. Symptoms and signs: Windthrow, ice, frost cracks, broken tops, broken branches, marginal leaf burn, and winter burn are the common symptoms.

### Animals and Birds

*Beaver.*—Common host species: All tree species. Symptoms and signs: Beavers leave toothmarks and remove the bark from the bole of the tree. Trees are often flooded by water impoundment, which can lead to flooding damage and death.

*Other Animals.*—Common host species: All tree species. Symptoms and signs: Branches clipped off or broken, bark removed, holes in the stem, and tears and toothmarks in the wood are all common signs of animal activity.

*Sapsucker.*—Common host species: All tree species. Symptoms and signs: Horizontal rows of small holes that may encircle the tree's bole are seen. Bark below the holes is usually streaked or stained by oozing sap.

### Insects

*Bark Beetles.*—Common host species: All pines. Symptoms and signs: Symptoms include pitch tubes, bark beetle galleries on the inner bark surface and the surface of the sapwood, exit holes, and loose bark. Streaks caused by blue stain fungi are often evident in the sapwood. Foliage of infested trees gradually yellows and then turns red.

*Hardwood Borers.*—Common host species: All hardwoods. Symptoms and signs: The initial symptom is a dark sap spot on the bark surface, often mixed with frass. Eventually, coarse boring particles appear in bark cracks and crevices beneath the point of attack. Old damage appears as knobby overgrowths or scars on the bark surface.

*Terminal Shoot and Stem Borers.*—Common host species: All tree species. Symptoms and signs: Fresh attacks show boring dust and frass at the entrance holes, which are most often located at the base of leaf petioles and buds. Resin globs may be present at points of attack. Dieback results from larval tunneling within terminal shoots and branches. Foliage on the shoots turns yellow, red, and finally brown.

*Other Insects.*—Common host species: All tree species. Symptoms and signs: All damage caused by insects not identified in separate categories. Includes hardwood defoliators (e.g., orangestriped oakworm and fall cankerworm), pine defoliators (e.g., redheaded pine sawfly), and pine weevils.

### Human Activities

*People.*—Common host species: All tree species. Symptoms and signs: Initials in bark, nails in tree, burns from lanterns, stripped bark, wire around stem, and ax marks are signs of damage by people.

*Logging and Related.*—Common host species: All tree species. Symptoms and signs: Logging scars on the stem will form callus ridges within 1 to 2 years after wounding. Trees with logging damage are scattered in stands and show no charring. Broken limbs and scars on the stem near the crown will occur from the felling of other trees. Skid trails, stumps, or other evidence of logging will be present.

## FOREST SURVEY TERMS

The following terms, used by the Forest Inventory Analysis group are presented to clarify some of the constraints placed on the data collected, and on subsequent data analysis.

*Acceptable Trees.*—Growing-stock trees of commercial species that meet specified standards of size and quality, but do not qualify as desirable trees.

*Annual Accumulated Cull.*—Total cull divided by the intrasurvey period.

*Basal Area.*—The area in square feet of the cross section at breast height of a single tree or of all the trees in a stand, usually expressed in square feet per acre.

*Commercial Forest Land.*—Forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization.

*Cull Volume.*—Total volume loss due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of the bole too rough to be used as sawtimber or pulp.

*Desirable Trees.*—Growing-stock trees of commercial species having no serious quality defects that limit present or prospective use for timber products, of relatively high vigor, and containing no pathogens that may result in death or serious deterioration before rotation age.

*D.b.h.* (Diameter at breast height).—Tree diameter in inches, outside bark, measured at 4.5 feet above ground.

*Diameter Class.*—A classification of trees based on diameter outside bark, at d.b.h. Two-inch diameter classes are commonly used in forest surveys, with the even numbered inch as the approximate midpoint for a class. For example, the 6-inch class includes trees 5.0 through 6.9 inches d.b.h.

*Growing-Stock Trees.*—Live trees of commercial species excluding rough and rotten trees.

*Hardwoods.*—Dicotyledonous trees, usually broadleaved and deciduous.

*Incidence.*—Percentage of susceptible trees affected by a damaging agent.

*Intrasurvey Period.*—The number of years between the current survey and the past survey.

*Mortality.*—Number or sound-wood volume of live trees that died from natural causes during the intrasurvey period.

*Poletimber Trees.*—Live trees of commercial species at least 5.0 inches d.b.h. but smaller than sawtimber size, of good form and vigor.

*Rough and Rotten Trees.*—Live trees that are unmerchantable for saw logs currently or potentially because of defect, rot, or species.

*Saplings.*—Live trees 1.0 to 4.9 inches d.b.h. and of good form and vigor.

*Saw Log.*—A log meeting minimum standards of diameter, length, and defect, including logs at least 8 feet long, sound and straight, with a minimum diameter inside bark of 6.0 inches for softwoods and 8.0 inches for hardwoods.

*Sawtimber Trees.*—Live trees of commercial species containing at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, with at least one-third of the gross board-foot volume between the 1-foot stump and minimum saw log top being sound. Softwoods must be at least 9.0 inches d.b.h. and hardwoods at least 11.0 inches d.b.h.

*Sawtimber Volume.*—Net volume of the saw log portion of live sawtimber in board feet of the International rule, 1/4-inch kerf.

*Softwoods.*—Coniferous trees, usually evergreen, having needles or scalelike leaves.

*Species Groups.*—Sets of tree species pooled together for standard reporting.

- Hard maples: Florida, black, and sugar maples.
- Soft maples: Boxelder, red, and silver maples.
- Select red oaks: Cherrybark, northern red, and shumard oaks.
- Other red oaks: Scarlet, southern red, laurel, water, willow, black, and others not in select red oaks.
- Select white oaks: White, swamp white, bur, and swamp chestnut oaks.
- Other white oaks: Overcup, chestnut, post, live, and others not in select white oaks.

- Other eastern hardwoods: Buckeye, birch, hackberry, dogwood, persimmon, honeylocust, silverbell, holly, butternut, cucumbertree, mulberry, scrub oaks, willow, and other commercial species.

*Stand-size Class.*—A classification of forest land based on the size class of growing-stock trees on the area.

*Sawtimber stands:* Stands at least 16.7 percent stocked with growing-stock trees, with half or more of the total stocking in sawtimber or poletimber trees and sawtimber stocking at least equal to poletimber stocking.

*Poletimber stands:* Stands at least 16.7 percent stocked with growing-stock trees, with half or more of this stocking in poletimber and sawtimber trees, and poletimber stocking exceeding that of sawtimber.

*Sapling-seedling stands:* Stands at least 16.7 percent stocked with growing-stock trees, of which more than half of the stocking is saplings and seedlings.

*Susceptible Trees.*—All living trees. Includes desirable and acceptable trees, as well as rough and rotten trees.

*Timber Removals.*—The net volume of growing-stock trees removed from the inventory by harvesting or cultural operations such as timber-stand improvement, land clearing, or changes in land use.

*TSI.*—Timber stand improvement.

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# Appendix I—Tables

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Table 1.—*Area of commercial forest land in Tennessee, by stand-size class and forest type*

| Forest classification | Thousands of acres[1] |
|---|---|
| Stand-size class: | |
| Sawtimber | 4,962.7 |
| Poletimber | 5,287.4 |
| Sapling-seedling | 2,545.1 |
| Understocked areas | 68.0 |
| All stand sizes | 12,863.2 |
| Forest type: | |
| White oak-red oak-hickory | 7,016.6 |
| Mixed hardwoods | 959.9 |
| Virginia pine-southern red oak | 523.2 |
| Yellow poplar-white oak-N. red oak | 488.1 |
| Virginia pine | 485.8 |
| Eastern redcedar-hardwood | 384.2 |
| Shortleaf pine-oak | 299.8 |
| Sweetgum-Nuttall oak-willow oak | 296.4 |
| Loblolly pine | 282.0 |
| Shortleaf pine | 259.5 |
| White oak | 241.3 |
| Sugarberry-American elm-green ash | 237.9 |
| Chestnut oak | 229.6 |
| Eastern redcedar | 229.3 |
| Sweetgum-yellow poplar | 197.8 |
| Post oak-black oak-bear oak | 112.8 |
| White pine-N. red oak-white ash | 97.0 |
| Loblolly pine-hardwood | 86.6 |
| Sycamore-pecan-American elm | 62.2 |
| Sweetbay-swamp tupelo-red maple | 59.8 |
| Maple-beech-birch | 59.6 |
| Cypress-tupelo | 42.3 |
| Other oak-pine | 39.8 |
| Sand pine | 38.4 |
| Pitch pine | 23.2 |
| Overcup oak-water hickory | 21.5 |
| Swamp chestnut oak-cherrybark oak | 20.9 |
| Willow | 20.8 |
| Cottonwood | 16.2 |
| Southern scrub oak | 14.0 |
| Hemlock | 10.7 |
| Table-mountain pine | 5.8 |
| All types | 12,863.2 |

[1]Totals may not add due to rounding.

Table 2.—*Percentage of susceptible softwood trees damaged, by species and tree size in Tennessee*

| Host | Total population | Trees damaged | | | Volume of cull[1] | |
|---|---|---|---|---|---|---|
| | | Sapling | Poletimber | Sawtimber | Poletimber | Sawtimber |
| | *Thousands* | - - - - - - - - - *Percent* - - - - - - - - - | | | *Mft³* | *Mfbm* |
| Eastern redcedar | 385,692.4 | 34.1 | 38.8 | 44.4 | 6,997.0 | 5,050.2 |
| Virginia pine | 302,329.9 | 30.8 | 29.6 | 39.7 | 7,581.9 | 67,154.7 |
| Shortleaf pine | 153,729.3 | 32.2 | 27.4 | 25.0 | 1,797.9 | 24,992.7 |
| Loblolly pine | 118,874.7 | 15.3 | 21.4 | 29.6 | 1,219.0 | 16,336.5 |
| Eastern hemlock | 48,175.0 | 13.9 | 17.0 | 31.6 | 0.0 | 6,415.6 |
| Eastern white pine | 46,104.8 | 18.1 | 20.0 | 21.3 | 128.5 | 6,343.9 |
| Pitch pine | 16,067.7 | 54.7 | 27.4 | 35.7 | 597.2 | 9,640.9 |
| Table-mountain pine | 4,603.9 | 25.1 | 59.7 | 44.7 | 324.2 | 2,139.8 |
| Baldcypress | 2,326.6 | 0.0 | 41.7 | 70.7 | 159.6 | 9,285.1 |
| Balsam fir | 588.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Red spruce | 228.2 | 0.0 | 0.0 | 0.0 | 91.3 | 0.0 |
| Totals[2] | 1,078,721.1 | 29.57 | 29.43 | 33.55 | 18,896.5 | 147,359.4 |

[1]Cull due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of bole that are too rough to be utilized as pulpwood or as sawtimber.

[2]Totals may not add due to rounding.

Table 3.—*Percentage of susceptible hardwood trees damaged, by species and tree size in Tennessee*

| Host | Total population | Trees damaged | | | Volume of cull[1] | |
|---|---|---|---|---|---|---|
| | | Sapling | Poletimber | Sawtimber | Poletimber | Sawtimber |
| | *Thousands* | ---------- *Percent* ---------- | | | *Mft³* | *Mfbm* |
| Other eastern hardwoods | 2,871,071.7 | 32.8 | 52.1 | 72.3 | 98,180.7 | 123,756.6 |
| Hickories | 770,086.7 | 39.5 | 39.8 | 51.9 | 44,529.4 | 109,160.9 |
| Soft maple | 703,010.5 | 42.3 | 55.2 | 74.7 | 31,340.8 | 65,189.0 |
| Select white oaks[2] | 624,015.9 | 32.5 | 37.1 | 47.2 | 23,247.1 | 121,596.9 |
| Other red oaks | 577,024.8 | 29.5 | 36.5 | 53.0 | 37,513.7 | 228,069.3 |
| Blackgum/ tupelo | 506,981.7 | 54.1 | 62.7 | 71.7 | 13,935.8 | 33,549.7 |
| Other white oaks | 388,241.6 | 34.7 | 41.0 | 60.1 | 41,296.5 | 142,506.3 |
| Hard maple | 270,561.2 | 39.5 | 60.6 | 75.0 | 11,250.0 | 23,164.8 |
| Ash | 266,390.4 | 59.9 | 58.9 | 62.6 | 18,808.1 | 61,318.2 |
| Yellow-poplar | 260,684.1 | 26.3 | 39.4 | 48.9 | 10,638.4 | 91,065.8 |
| Sweetgum | 216,773.8 | 38.1 | 41.1 | 59.4 | 11,087.2 | 57,468.5 |
| Select red oaks[3] | 128,408.0 | 43.5 | 37.3 | 53.7 | 20,833.7 | 62,872.4 |
| Noncommercial | 110,480.4 | 10.0 | 8.5 | 6.9 | 1,436.5 | 345.4 |
| Beech | 90,392.7 | 47.9 | 59.3 | 77.2 | 5,318.7 | 43,856.7 |
| Black walnut | 29,198.2 | 62.1 | 57.2 | 69.0 | 3,678.1 | 11,245.4 |
| Basswood | 13,628.0 | 71.5 | 63.3 | 59.2 | 1,576.6 | 9,522.8 |
| Cottonwood | 982.3 | 0.0 | 100.0 | 65.5 | 0.0 | 2,999.4 |
| Totals[4] | 7,827,932.3 | 36.9 | 45.1 | 57.6 | 374,671.1 | 1,187.688.0 |

[1]Damage due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of bole that are too rough to be utilized as pulpwood or as sawtimber.

[2]White, swamp white, swamp chestnut, and bur oaks.

[3]Cherrybark, N. red, and shumard oaks.

[4]Totals may not add due to rounding.

Table 4.—*Approximate number of trees and percentage of damage/defect by softwood species and damaging agent or defect in Tennessee*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Eastern redcedar | 328,358,000 | 49,423,000 | 7,911,000 |
| Diseases—other | 1.9 | 7.0 | 14.2 |
| Root rots | 0.0 | 0.4 | 0.0 |
| Cankers | 0.0 | 0.0 | 0.5 |
| Branch stubs | 1.4 | 5.6 | 5.7 |
| Dieback | 0.2 | 0.7 | 0.4 |
| Fire | 0.0 | 0.7 | 0.0 |
| Sapsucker | 0.0 | 0.3 | 0.0 |
| Weather—other | 5.8 | 6.6 | 6.3 |
| Suppression, stagnation | 13.9 | 1.3 | 0.0 |
| Unknown | 0.4 | 0.2 | 1.6 |
| Other—misc. (old age, etc.) | 9.3 | 14.8 | 14.7 |
| People | 0.2 | 0.0 | 0.0 |
| Logging—damage | 0.8 | 0.0 | 0.6 |
| Offsite tree | 0.2 | 1.3 | 0.5 |
| Virginia pine | 185,556,000 | 84,390,000 | 32,384,000 |
| Insects—other | 0.0 | 1.1 | 2.0 |
| Diseases—other | 4.9 | 1.4 | 4.6 |
| Gall rusts | 0.0 | 0.5 | 0.0 |
| Branch stubs | 3.8 | 14.0 | 12.9 |
| Basal defects | 1.3 | 0.4 | 1.4 |
| Dieback | 0.0 | 0.0 | 0.5 |
| Pitch canker | 0.0 | 0.1 | 0.0 |
| Fire | 0.9 | 0.7 | 1.6 |
| Sapsucker | 0.0 | 0.0 | 0.2 |
| Weather—other | 0.3 | 1.4 | 3.1 |
| Flooding | 0.0 | 0.0 | 0.1 |
| Suppression, stagnation | 8.4 | 0.8 | 0.2 |
| Unknown | 0.0 | 0.3 | 0.3 |
| Other—misc. (old age, etc.) | 9.5 | 8.7 | 11.5 |
| People | 0.0 | 0.0 | 0.5 |
| Logging—damage | 1.3 | 0.2 | 0.6 |
| Offsite tree | 0.6 | 0.0 | 0.2 |
| Shortleaf pine | 79,648,000 | 46,259,000 | 27,822,000 |
| Insects—other | 0.7 | 1.4 | 2.6 |
| Diseases—other | 1.5 | 2.5 | 0.9 |
| Gall rusts | 0.8 | 0.9 | 0.6 |
| Branch stubs | 0.9 | 3.1 | 6.1 |
| Basal defects | 0.0 | 0.5 | 0.5 |
| Dieback | 0.0 | 0.0 | 0.1 |
| Fire | 0.7 | 0.2 | 0.6 |
| Sapsucker | 0.0 | 0.0 | 0.3 |
| Weather—other | 3.5 | 5.2 | 2.9 |
| Suppression, stagnation | 12.0 | 1.4 | 0.4 |
| Unknown | 2.2 | 0.6 | 0.2 |
| Other—misc. (old age, etc.) | 7.9 | 10.6 | 9.1 |
| Logging—damage | 2.1 | 1.2 | 0.7 |
| Offsite trees | 0.0 | 0.2 | 0.0 |
| Loblolly pine | 69,458,000 | 39,941,000 | 9,475,000 |
| Insects—other | 0.0 | 0.2 | 0.0 |
| Diseases—other | 1.1 | 0.2 | 0.0 |
| Gall rusts | 0.0 | 0.4 | 0.4 |
| Branch stubs | 0.0 | 1.0 | 8.7 |
| Basal defects | 0.0 | 0.0 | 0.2 |
| Dieback | 0.0 | 0.2 | 0.0 |
| Sapsucker | 0.0 | 0.0 | 0.7 |
| Weather—other | 0.9 | 6.4 | 7.8 |
| Suppression, stagnation | 6.9 | 0.9 | 0.0 |
| Other—misc. (old age, etc.) | 6.4 | 11.6 | 10.7 |
| Logging—damage | 0.0 | 0.2 | 0.0 |
| Offsite tree | 0.0 | 0.4 | 1.0 |

Table 4.—*Approximate number of trees and percentage of damage/defect by softwood species and damaging agent or defect in Tennessee—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Eastern hemlock | 41,558,000 | 3,442,000 | 3,175,000 |
| Diseases—other | 0.0 | 0.0 | 6.1 |
| Branch stubs | 1.5 | 11.8 | 12.3 |
| Fire | 2.5 | 0.0 | 0.0 |
| Flooding | 0.0 | 0.0 | 0.8 |
| Suppression, stagnation | 3.1 | 0.0 | 0.0 |
| Unknown | 0.0 | 0.0 | 0.4 |
| Other—misc. (old age, etc.) | 6.9 | 5.2 | 12.0 |
| Eastern white pine | 34,220,000 | 5,846,000 | 6,039,000 |
| Diseases—other | 1.6 | 0.0 | 1.6 |
| Branch stubs | 0.0 | 0.0 | 3.6 |
| Dieback | 0.0 | 0.0 | 0.6 |
| Sapsucker | 0.0 | 3.1 | 0.7 |
| Weather—other | 0.0 | 3.9 | 4.4 |
| Suppression, stagnation | 8.4 | 0.0 | 0.4 |
| Unknown | 0.0 | 0.0 | 0.5 |
| Other—misc. (old age, etc.) | 4.9 | 12.4 | 7.7 |
| People | 0.0 | 1.4 | 0.5 |
| Logging—damage | 3.2 | 0.0 | 1.5 |
| Pitch pine | 6,321,000 | 6,131,000 | 3,615,000 |
| Insects—other | 0.0 | 12.6 | 3.9 |
| Diseases—other | 0.0 | 1.6 | 5.2 |
| Branch stubs | 9.4 | 0.0 | 12.9 |
| Fire | 0.0 | 0.0 | 2.6 |
| Suppression, stagnation | 37.3 | 4.0 | 1.5 |
| Unknown | 0.0 | 5.0 | 2.3 |
| Other—misc. (old age, etc.) | 8.1 | 4.3 | 7.3 |
| Table-mountain pine | 2,295,000 | 1,524,000 | 785,000 |
| Diseases—other | 0.0 | 9.5 | 0.0 |
| Branch stubs | 0.0 | 23.2 | 0.0 |
| Fire | 25.1 | 7.9 | 26.2 |
| Suppression, stagnation | 0.0 | 7.2 | 10.4 |
| Other—misc. (old age, etc.) | 0.0 | 11.9 | 8.1 |
| Baldcypress | 667,000 | 212,000 | 1,448,000 |
| Diseases—other | 0.0 | 0.0 | 15.6 |
| Branch stubs | 0.0 | 0.0 | 9.8 |
| Dieback | 0.0 | 0.0 | 15.2 |
| Weather—other | 0.0 | 0.0 | 3.2 |
| Suppression, stagnation | 0.0 | 41.7 | 2.1 |
| Unknown | 0.0 | 0.0 | 1.5 |
| Other—misc. (old age, etc.) | 0.0 | 0.0 | 23.3 |

Table 5.—*Approximate number of trees and percentage of damage incidence by hardwood species group and damaging agent or defect in Tennessee*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Other eastern hardwoods | 2,606,951,000 | 236,561,000 | 27,559,000 |
| Insects—other | 0.7 | 1.7 | 0.6 |
| Diseases—other | 2.7 | 13.6 | 24.1 |
| Root rots | 0.0 | 0.2 | 0.5 |
| Hardwood cankers | 0.0 | 0.4 | 0.6 |
| Branch stubs | 0.7 | 5.1 | 5.9 |
| Basal defects | 0.0 | 0.1 | 0.0 |
| Dieback | 0.1 | 1.2 | 1.1 |
| Fire | 0.3 | 0.2 | 0.4 |
| Animals | 0.1 | 0.1 | 0.2 |
| Beaver | 0.0 | 0.1 | 0.2 |
| Sapsucker | 0.0 | 0.0 | 0.3 |
| Weather—other | 1.6 | 4.3 | 6.6 |
| Flooding | 0.1 | 0.3 | 1.0 |
| Suppression, stagnation | 8.1 | 1.7 | 0.2 |
| Unknown | 0.2 | 0.7 | 0.4 |
| Other—misc. (old age, etc.) | 16.4 | 21.5 | 29.4 |
| People | 0.0 | 0.2 | 0.1 |
| Logging—damage | 1.6 | 0.8 | 0.8 |
| Offsite tree | 0.3 | 0.2 | 0.3 |
| Hickories | 596,333,000 | 138,884,000 | 34,870,000 |
| Insects—other | 2.8 | 1.1 | 0.9 |
| Diseases—other | 2.2 | 5.5 | 12.3 |
| Root rots | 0.1 | 0.3 | 0.3 |
| Hardwood cankers | 0.0 | 0.0 | 0.2 |
| Branch stubs | 1.7 | 5.8 | 9.3 |
| Dieback | 0.8 | 1.3 | 1.6 |
| Fire | 0.6 | 1.1 | 2.3 |
| Sapsucker | 0.0 | 0.3 | 0.8 |
| Weather—other | 2.7 | 3.7 | 3.2 |
| Flooding | 0.0 | 0.0 | 0.1 |
| Suppression, stagnation | 12.2 | 0.3 | 0.1 |
| Unknown | 0.2 | 0.8 | 0.2 |
| Other—misc. (old age, etc.) | 14.1 | 18.0 | 19.6 |
| People | 0.0 | 0.1 | 0.3 |
| Logging—damage | 1.8 | 1.0 | 0.5 |
| Offsite tree | 0.4 | 0.6 | 0.2 |
| Soft maple | 624,695,000 | 65,765,000 | 12,550,000 |
| Insects—other | 0.9 | 0.0 | 0.0 |
| Diseases—other | 3.6 | 13.5 | 29.4 |
| Root rots | 0.1 | 0.0 | 0.0 |
| Hardwood cankers | 0.1 | 0.3 | 0.1 |
| Branch stubs | 1.7 | 6.7 | 9.8 |
| Dieback | 0.2 | 2.2 | 1.3 |
| Fire | 0.6 | 1.0 | 1.9 |
| Sapsucker | 0.0 | 0.0 | 0.5 |
| Weather—other | 1.5 | 2.6 | 2.7 |
| Flooding | 0.5 | 0.9 | 0.9 |
| Suppression, stagnation | 8.0 | 0.3 | 0.0 |
| Unknown | 0.3 | 0.4 | 0.4 |
| Other—misc. (old age, etc.) | 22.4 | 24.2 | 26.3 |
| People | 0.1 | 0.5 | 0.4 |
| Logging—damage | 2.2 | 2.5 | 0.4 |
| Offsite tree | 0.2 | 0.0 | 0.5 |
| Select white oaks[1] | 445,983,000 | 133,057,000 | 44,976,000 |
| Insects—other | 0.7 | 0.3 | 0.3 |
| Diseases—other | 1.2 | 4.6 | 7.8 |
| Root rots | 0.0 | 0.3 | 0.4 |
| Hardwood cankers | 0.0 | 0.0 | 0.2 |
| Branch stubs | 1.8 | 6.4 | 10.6 |

Table 5.—*Approximate number of trees and percentage of damage incidence by hardwood species group and damaging agent or defect in Tennessee—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Select white oaks[1]—Continued | | | |
| Dieback | 0.6 | 1.7 | 1.9 |
| Fire | 0.1 | 0.6 | 0.7 |
| Animals | 0.1 | 0.0 | 0.0 |
| Sapsucker | 0.0 | 0.2 | 0.2 |
| Weather—other | 1.6 | 3.6 | 3.6 |
| Suppression, stagnation | 11.4 | 0.8 | 0.0 |
| Unknown | 0.0 | 0.3 | 0.3 |
| Other—misc. (old age, etc.) | 12.4 | 17.1 | 20.2 |
| People | 0.0 | 0.1 | 0.2 |
| Logging—damage | 2.4 | 0.9 | 0.7 |
| Offsite tree | 0.1 | 0.3 | 0.2 |
| Other red oaks | 376,563,000 | 142,843,000 | 57,619,000 |
| Insects—other | 0.8 | 0.1 | 0.4 |
| Diseases—other | 2.9 | 7.9 | 15.6 |
| Root rots | 0.0 | 0.4 | 0.4 |
| Hardwood cankers | 0.2 | 0.2 | 0.1 |
| Branch stubs | 2.9 | 10.0 | 13.4 |
| Dieback | 0.9 | 1.2 | 1.6 |
| Fire | 0.6 | 1.4 | 1.0 |
| Weather—other | 2.1 | 1.8 | 3.0 |
| Suppression, stagnation | 6.5 | 0.9 | 0.2 |
| Unknown | 0.1 | 0.4 | 0.6 |
| Other—misc. (old age, etc.) | 10.2 | 11.5 | 16.4 |
| Logging—damage | 1.8 | 0.5 | 0.3 |
| Offsite tree | 0.6 | 0.1 | 0.2 |
| Blackgum/tupelo | 462,052,000 | 36,862,000 | 8,067,000 |
| Insects—other | 0.4 | 0.0 | 0.0 |
| Diseases—other | 1.9 | 11.1 | 29.3 |
| Root rots | 0.1 | 0.3 | 1.8 |
| Hardwood cankers | 0.0 | 0.0 | 0.2 |
| Branch stubs | 0.6 | 3.6 | 4.5 |
| Dieback | 0.7 | 1.4 | 2.6 |
| Fire | 0.2 | 0.9 | 0.6 |
| Beaver | 0.0 | 0.0 | 0.3 |
| Weather—other | 4.5 | 7.1 | 5.6 |
| Flooding | 0.0 | 0.0 | 0.4 |
| Suppression, stagnation | 21.3 | 4.8 | 0.0 |
| Unknown | 0.1 | 0.2 | 1.5 |
| Other—misc. (old age, etc.) | 21.2 | 29.6 | 24.3 |
| People | 0.1 | 0.6 | 0.0 |
| Logging—damage | 2.8 | 2.8 | 0.0 |
| Offsite tree | 0.1 | 0.3 | 0.6 |
| Other white oaks | 231,640,000 | 115,713,000 | 40,888,000 |
| Insects—other | 0.0 | 0.5 | 0.4 |
| Diseases—other | 2.2 | 7.6 | 15.0 |
| Root rots | 0.0 | 0.0 | 0.3 |
| Hardwood cankers | 0.0 | 0.3 | 0.2 |
| Branch stubs | 1.6 | 8.2 | 12.7 |
| Dieback | 0.0 | 0.5 | 1.2 |
| Fire | 1.1 | 1.3 | 1.7 |
| Animals | 0.3 | 0.0 | 0.0 |
| Sapsucker | 0.0 | 0.0 | 0.1 |
| Weather—other | 2.6 | 2.6 | 2.9 |
| Suppression, stagnation | 8.8 | 0.2 | 0.0 |
| Unknown | 0.0 | 0.9 | 1.2 |
| Other—misc. (old age, etc.) | 15.3 | 18.1 | 24.0 |
| People | 0.3 | 0.0 | 0.0 |
| Logging—damage | 2.1 | 0.7 | 0.3 |
| Offsite tree | 0.5 | 0.0 | 0.2 |

Table 5.—*Approximate number of trees and percentage of damage incidence by hardwood species group and damaging agent or defect in Tennessee—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Hard maple | 228,928,000 | 32,227,000 | 9,406,000 |
| Insects—other | 0.3 | 0.6 | 0.2 |
| Diseases—other | 2.8 | 9.9 | 25.4 |
| Root rots | 0.0 | 0.2 | 1.5 |
| Hardwood cankers | 0.3 | 0.4 | 0.4 |
| Branch stubs | 1.7 | 15.8 | 12.8 |
| Dieback | 0.5 | 2.2 | 1.7 |
| Fire | 0.2 | 1.2 | 2.0 |
| Animals | 0.0 | 0.0 | 0.1 |
| Sapsucker | 0.2 | 0.1 | 2.4 |
| Weather—other | 0.7 | 2.7 | 1.8 |
| Suppression, stagnation | 9.2 | 1.0 | 0.0 |
| Unknown | 0.2 | 0.0 | 0.1 |
| Other—misc. (old age, etc.) | 21.0 | 23.2 | 26.1 |
| People | 0.3 | 0.0 | 0.0 |
| Logging—damage | 1.6 | 1.0 | 0.5 |
| Offsite tree | 0.5 | 2.3 | 0.2 |
| Ash | 217,030,000 | 39,981,000 | 9,379,000 |
| Insects—other | 2.2 | 0.2 | 1.3 |
| Diseases—other | 3.1 | 5.9 | 13.1 |
| Root rots | 0.0 | 0.2 | 0.9 |
| Hardwood cankers | 0.7 | 0.0 | 0.0 |
| Branch stubs | 1.5 | 4.4 | 3.3 |
| Dieback | 0.3 | 0.4 | 0.6 |
| Fire | 0.0 | 0.6 | 0.8 |
| Beaver | 0.0 | 0.1 | 0.0 |
| Sapsucker | 0.3 | 0.0 | 0.1 |
| Weather—other | 7.7 | 4.8 | 3.7 |
| Flooding | 1.9 | 1.7 | 2.7 |
| Suppression, stagnation | 12.3 | 0.7 | 0.0 |
| Unknown | 0.2 | 0.3 | 1.5 |
| Other—misc. (old age, etc.) | 28.0 | 37.4 | 30.6 |
| People | 0.2 | 0.2 | 0.3 |
| Logging—damage | 1.2 | 0.7 | 1.9 |
| Offsite tree | 0.5 | 1.2 | 1.4 |
| Yellow-poplar | 173,052,000 | 59,518,000 | 28,114,000 |
| Diseases—other | 2.7 | 4.8 | 9.2 |
| Root rots | 0.0 | 0.1 | 0.4 |
| Hardwood cankers | 0.0 | 0.2 | 0.1 |
| Branch stubs | 0.6 | 6.9 | 11.6 |
| Dieback | 0.0 | 0.4 | 1.4 |
| Fire | 0.0 | 0.1 | 0.7 |
| Sapsucker | 0.0 | 0.0 | 0.7 |
| Weather—other | 1.3 | 5.8 | 4.3 |
| Suppression, stagnation | 7.8 | 0.3 | 0.0 |
| Unknown | 0.3 | 0.0 | 0.6 |
| Other—misc. (old age, etc.) | 12.2 | 19.5 | 18.9 |
| People | 0.0 | 0.2 | 0.0 |
| Logging—damage | 1.3 | 0.9 | 0.4 |
| Offsite tree | 0.0 | 0.2 | 0.7 |
| Sweetgum | 169,605,000 | 36,438,000 | 10,731,000 |
| Diseases—other | 1.5 | 7.5 | 21.1 |
| Root rots | 0.0 | 0.1 | 0.5 |
| Hardwood cankers | 0.0 | 0.0 | 0.4 |
| Branch stubs | 0.3 | 3.5 | 6.9 |
| Dieback | 0.0 | 2.9 | 4.9 |
| Beaver | 0.0 | 0.3 | 1.4 |
| Weather—other | 2.8 | 6.7 | 7.3 |
| Flooding | 0.0 | 0.0 | 0.4 |
| Suppression, stagnation | 16.0 | 1.1 | 0.0 |

Table 5.—*Approximate number of trees and percentage of damage incidence by hardwood species group and damaging agent or defect in Tennessee—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Sweetgum—Continued | | | |
| Unknown | 0.3 | 0.5 | 0.0 |
| Other—misc. (old age, etc.) | 15.9 | 16.6 | 15.0 |
| People | 0.0 | 0.0 | 0.2 |
| Logging—damage | 1.3 | 1.4 | 0.9 |
| Offsite tree | 0.0 | 0.4 | 0.5 |
| Select red oaks[2] | 74,762,000 | 33,337,000 | 20,309,000 |
| Insects—other | 3.1 | 0.6 | 0.4 |
| Diseases—other | 1.5 | 8.3 | 15.8 |
| Root rots | 0.0 | 0.1 | 0.4 |
| Branch stubs | 3.2 | 9.7 | 10.5 |
| Dieback | 0.0 | 2.0 | 2.6 |
| Fire | 0.0 | 0.0 | 0.7 |
| Animals | 0.0 | 0.0 | 0.1 |
| Weather—other | 3.9 | 4.1 | 5.9 |
| Flooding | 0.0 | 0.0 | 0.2 |
| Suppression, stagnation | 9.6 | 0.6 | 0.0 |
| Unknown | 0.0 | 0.3 | 0.4 |
| Other—misc. (old age, etc.) | 22.2 | 11.1 | 15.9 |
| People | 0.0 | 0.1 | 0.0 |
| Logging—damage | 0.0 | 0.4 | 0.7 |
| Offsite tree | 0.0 | 0.0 | 0.3 |
| Noncommercial | 596,333,000 | 138,884,000 | 34,870,000 |
| Diseases—other | 1.0 | 2.9 | 0.0 |
| Fire | 1.0 | 0.0 | 0.0 |
| Suppression, stagnation | 4.6 | 3.8 | 0.0 |
| Other—misc. (old age, etc.) | 3.4 | 0.6 | 6.9 |
| Logging—damage | 0.0 | 1.1 | 0.0 |
| Beech | 64,605,000 | 17,006,000 | 8,782,000 |
| Insects—other | 0.8 | 0.0 | 0.0 |
| Diseases—other | 2.1 | 14.6 | 37.4 |
| Root rots | 0.0 | 0.0 | 0.8 |
| Hardwood cankers | 0.0 | 0.0 | 0.3 |
| Branch stubs | 0.0 | 10.0 | 8.8 |
| Dieback | 0.0 | 1.1 | 3.3 |
| Fire | 0.0 | 1.3 | 2.5 |
| Weather—other | 2.7 | 0.9 | 1.9 |
| Suppression, stagnation | 11.0 | 2.9 | 0.2 |
| Unknown | 0.0 | 0.7 | 0.8 |
| Other—misc. (old age, etc.) | 29.4 | 20.2 | 18.6 |
| People | 0.0 | 0.7 | 0.0 |
| Logging—damage | 2.0 | 6.3 | 2.1 |
| Offsite tree | 0.0 | 0.7 | 0.4 |
| Black walnut | 16,284,000 | 10,169,000 | 2,745,000 |
| Insects—other | 3.4 | 0.0 | 0.9 |
| Diseases—other | 6.8 | 16.1 | 21.1 |
| Root rots | 0.0 | 0.8 | 1.4 |
| Branch stubs | 0.0 | 6.1 | 6.5 |
| Dieback | 0.0 | 3.1 | 0.0 |
| Fire | 0.0 | 0.0 | 1.8 |
| Sapsucker | 0.0 | 0.0 | 0.3 |
| Weather—other | 3.7 | 1.0 | 6.1 |
| Suppression, stagnation | 10.6 | 0.6 | 0.0 |
| Other—misc. (old age, etc.) | 37.6 | 28.8 | 29.0 |
| People | 0.0 | 0.0 | 1.9 |
| Logging—damage | 0.0 | 0.7 | 0.0 |
| Basswood | 9,337,000 | 2,300,000 | 1,990,000 |
| Diseases—other | 0.0 | 16.9 | 25.7 |
| Root rots | 0.0 | 0.0 | 0.6 |
| Branch stubs | 5.5 | 11.3 | 2.6 |

Table 5.—*Approximate number of trees and percentage of damage incidence by hardwood species group and damaging agent or defect in Tennessee—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Basswood—Continued | | | |
| Dieback | 0.0 | 2.1 | 0.0 |
| Sapsucker | 0.0 | 3.6 | 3.1 |
| Weather—other | 0.0 | 0.0 | 7.9 |
| Suppression, stagnation | 0.0 | 11.1 | 0.0 |
| Unknown | 0.0 | 0.0 | 3.0 |
| Other—misc. (old age, etc.) | 65.9 | 14.8 | 16.4 |
| Offsite tree | 0.0 | 3.5 | 0.0 |
| Cottonwood | .0 | 372,000 | 610,000 |
| Diseases—other | 0.0 | 0.0 | 31.3 |
| Branch stubs | 0.0 | 0.0 | 2.5 |
| Weather—other | 0.0 | 74.9 | 19.8 |
| Flooding | 0.0 | 25.1 | 9.1 |
| Other—misc. (old age, etc.) | 0.0 | 0.0 | 2.7 |

[1]White, swamp white, swamp chestnut, and bur oaks.
[2]Cherrybark, N. red, and shumard oaks.

Table 6.—*Poletimber and sawtimber removals and wood losses in Tennessee*

| Species | Annual timber removals | | Volume loss | | | |
|---|---|---|---|---|---|---|
| | | | Annual mortality | | Annual accumulated cull[1] | |
| | Poletimber | Sawtimber | Poletimber | Sawtimber | Poletimber | Sawtimber |
| | *Mft*[3] | *Mfbm* | *Mft*[3] | *Mfbm* | *Mft*[3] | *Mfbm* |
| Softwoods | | | | | | |
| Eastern redcedar | 1,975.3 | 6,508.4 | 2,089.0 | 2,161.0 | 743.8 | 536.1 |
| Virginia pine | 2,847.8 | 56,184.8 | 2,093.8 | 14,458.7 | 785.8 | 7,241.1 |
| Shortleaf pine | 5,631.9 | 67,411.4 | 5,744.2 | 12,858.0 | 194.6 | 2,674.3 |
| Loblolly pine | 7,732.1 | 24,630.1 | 1,998.8 | 6,064.3 | 131.2 | 1,771.6 |
| Eastern hemlock | 58.8 | 3,968.5 | 0.0 | 0.0 | 0.0 | 680.6 |
| Eastern white pine | 108.1 | 14,442.0 | 229.4 | 2,450.3 | 14.0 | 696.5 |
| Pitch pine | 218.9 | 3,583.8 | 336.5 | 3,428.1 | 61.5 | 995.1 |
| Table-mountain pine | 0.0 | 0.0 | 122.1 | 782.9 | 32.0 | 214.0 |
| Baldcypress | 0.0 | 336.4 | 0.0 | 1,253.6 | 15.9 | 998.9 |
| Red spruce | 0.0 | 0.0 | 0.0 | 0.0 | 10.5 | 0.0 |
| Totals | 18,572.9 | 177,065.5 | 12,603.7 | 43,456.9 | 1,989.3 | 15,808.1 |
| Hardwoods | | | | | | |
| Other eastern hardwoods | 5,539.5 | 50,540.8 | 7,372.0 | 35,805.4 | 10,634.2 | 13,465.7 |
| Hickories | 6,144.9 | 88,075.9 | 3,599.1 | 21,006.5 | 4,786.3 | 11,864.3 |
| Soft maple | 1,074.6 | 15,393.3 | 574.5 | 2,772.8 | 3,391.0 | 6,967.0 |
| Select white oaks[2] | 7,244.6 | 154,515.5 | 1,461.8 | 9,176.2 | 2,517.7 | 13,260.1 |
| Other red oaks | 9,574.9 | 201,138.3 | 2,986.3 | 20,327.0 | 4,055.7 | 24,736.4 |
| Blackgum/tupelo | 1,859.1 | 12,875.7 | 856.1 | 3,450.8 | 1,520.4 | 3,602.6 |
| Other white oaks | 6,615.9 | 81,254.0 | 1,669.9 | 6,580.3 | 4,420.3 | 15,164.6 |
| Hard maple | 616.4 | 16,612.7 | 571.1 | 1,907.1 | 1,243.9 | 2,561.4 |
| Ash | 914.7 | 26,510.2 | 1,297.0 | 1,851.7 | 1,958.2 | 6,470.9 |
| Yellow-poplar | 2,957.8 | 64,072.5 | 461.0 | 4,563.6 | 1,153.1 | 9,762.0 |
| Sweetgum | 2,673.2 | 50,120.7 | 1,273.8 | 4,234.4 | 1,216.0 | 6,243.2 |
| Select red oaks[3] | 1,977.4 | 73,834.9 | 477.7 | 10,072.3 | 2,263.1 | 6,700.3 |
| Noncommercial hardwoods | 0.0 | 6.0 | 6.0 | 0.0 | 154.4 | 34.5 |
| Beech | 285.1 | 14,036.6 | 229.4 | 1,157.0 | 561.0 | 4,714.8 |
| Black walnut | 471.0 | 3,839.8 | 465.8 | 2,017.0 | 397.0 | 1,181.4 |
| Basswood | 0.0 | 3,343.6 | 318.8 | 345.2 | 169.2 | 1,030.9 |
| Cottonwood | 0.0 | 4,364.0 | 84.6 | 704.5 | 0.0 | 307.3 |
| Totals | 47,949.0 | 860,528.1 | 23,699.0 | 125,971.7 | 40,441.7 | 128,067.3 |

[1]Cull due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of bole that are too rough to be utilized as pulpwood or sawtimber.
[2]White, swamp white, swamp chestnut, and bur oaks.
[3]Cherrybark, Northern red, and shumard oaks.

Table 7.—*Annual economic impact of damage on the timber resource in Tennessee*

| Species | Annual volume wood fiber loss | Stumpage value per unit | Annual loss |
|---|---|---|---|
| | | *Dollars* | |
| Softwoods | | | |
| Poletimber ($Mft^3$) | 14,593.0 | 45.10 | 658,143.20 |
| Sawtimber (Mfbm) | 59,265.0 | 62.00 | 3,674,432.23 |
| Hardwoods | | | |
| Poletimber ($Mft^3$) | 64,140.7 | 12.30 | 788,930.43 |
| Sawtimber (Mfbm) | 254,039.1 | 65.00 | 16,512,540.72 |
| All species | | | |
| Poletimber ($Mft^3$) | 78,733.7 | | 1,447,073.62 |
| Sawtimber (Mfbm) | 313,304.1 | | 20,186,972.95 |
| Total | | | 21,634,046.57 |

# Appendix II—Scientific Names of Tree Species Mentioned

| Common Name | Scientific Name |
|---|---|
| American elm | Ulmus americana L. |
| Ash | Fraxinus spp. |
| Baldcypress | Taxodium distichum (L.) Rich. |
| Balsam fir | Abies balsamea (L.) Mill. |
| Basswood | Tilia americana L. |
| Bear oak | Quercus ilicifolia Wangenh. |
| Beech | Fagus grandifolia Ehrh. |
| Black maple | Acer nigrum Michx. |
| Black oak | Quercus velutina Lam. |
| Black walnut | Juglans nigra L. |
| Blackgum | Nyssa sylvatica Marsh. |
| Birch | Betula spp. |
| Boxelder | Acer negundo L. |
| Buckeye | Aesculus spp. |
| Bur oak | Quercus macrocarpa Michx. |
| Butternut | Juglans cinerea L. |
| Cherrybark oak | Quercus falcata var. pagodifolia Ell. |
| Chestnut oak | Quercus prinus L. |
| Cottonwood | Populus deltoides Bartr. ex Marsh. |
| Cucumbertree | Magnolia acuminata L. |
| Cypress | Cupressus spp. |
| Dogwood | Cornus florida L. |
| Eastern hemlock | Tsuga canadensis (L.) Carr. |
| Eastern red cedar | Juniperus virginiana L. |
| Eastern white pine | Pinus strobus L. |
| Florida maple | Acer barbatum Michx. |
| Green ash | Fraxinus pennsylvanica Marsh. |
| Hackberry | Celtis occidentalis L. |
| Hickories | Carya spp. |
| Holly | Ilex opaca Art. |
| Honeylocust | Gleditsia tricanthos L. |

# Appendix II—Scientific Names of Tree Species Mentioned—Continued

| Common Name | Scientific Name |
|---|---|
| Laurel oak | Quercus laurifolia Michx. |
| Live oak | Quercus virginiana Mill. |
| Loblolly pine | Pinus taeda L. |
| Maples (soft or hard) | Acer spp. |
| Mulberry | Morus spp. |
| Northern red oak | Quercus rubra L. |
| Nuttall oak | Quercus nuttallii Palmer |
| Oaks (red or white) | Quercus spp. |
| Overcup oak | Quercus lyrata Walt. |
| Pecan | Carya illinoiensis (Wangenh.) K. Koch. |
| Persimmon | Diospyros virginiana L. |
| Pines | Pinus spp. |
| Pitch pine | Pinus rigida Mill. |
| Post oak | Quercus stellata Wangenh. |
| Red maple | Acer rubrum L. |
| Red spruce | Picea rubens Sarg. |
| Sand pine | Pinus clausa (Chapm. ex Engelm.) Vasey ex Sarg. |
| Scarlet oak | Quercus coccinea Muench. |
| Scrub oak | Quercus spp. |
| Shortleaf pine | Pinus echinata Mill. |
| Shumard oak | Quercus shumardii Buckl. |
| Silver maple | Acer saccharinum L.SilverbellHalesia spp. |
| Southern red oak | Quercus falcata Michx. |
| Sugar maple | Acer saccharum Marsh. |
| Sugarberry | Celtis laevigata Willd. |
| Swamp chestnut oak | Quercus michauxii Nutt. |
| Swamp tupelo | Nyssa aquatica L. |
| Swamp white oak | Quercus bicolor Willd. |
| Sweetbay | Magnolia virginiana L. |
| Sweetgum | Liquidambar styraciflua L. |
| Sycamore | Platanus occidentalis L. |
| Table-mountain pine | Pinus pungens Lamb. |
| Tupelo | Nyssa spp. |
| Virginia pine | Pinus virginiana Mill. |
| Water hickory | Carya aquatica (Michx. f.) Nutt. |
| Water oak | Quercus nigra L. |
| White ash | Fraxinus americana L. |
| White oak | Quercus alba L. |
| Willow | Salix spp. |
| Willow oak | Quercus phellos L. |
| Yellow poplar | Liriodendron tulipifera L. |

Mistretta, Paul A.; Bylin, Carl V.; Baker, Roger. Incidence and impact of damage to Tennessee's timber, 1982. Resour. Bull. SO-110. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1986. 18 p.

Data collected during a 1979-80 survey of Tennessee's forests are tabulated and discussed.

**Additional keywords:** forest resources, injury, insect, disease, survey.

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# Southern Pulpwood Production, 1984

Dennis M. May

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**Dennis M. May**

**Southern Forest Experiment Station**
New Orleans, Louisianna

and

**Southeastern Forest Experiment Station**
Asheville, North Carolina

of the

**Forest Service, U.S. Department of Agriculture**

in cooperation with the

**American Pulpwood Association**

Figure 1.--The twelve Southern States and the counties in each.

# Southern Pulpwood Production, 1984

Dennis M. May

## INTRODUCTION

This publication presents the findings of a 100-percent canvass of all wood-using pulpmills drawing roundwood or wood residues from the 12 Southern States (fig. 1). Canvass data are compiled annually and analyzed on an alternating basis by personnel of the Forest Inventory and Analysis Units of the Southern and Southeastern Forest Experiment Stations. All production figures are reported in standard cords. When necessary, pulpwood production data for mills reporting in nonstandard units are converted to standard cords using regional conversion factors.

## PULPWOOD

Southern pulpwood production reached 58.7 million cords in 1984, the highest production to date and a 4 percent increase over 1983's production of 56.6 million cords (table 1). Softwood roundwood accounted for 45 percent, hardwood roundwood accounted for 21 percent, and wood residues accounted for the remaining 34 percent of the total production. As in past years, Georgia was the top producing state with 9.8 million cords, followed closely by Alabama with 9.6 million cords. All states, except Oklahoma and Tennessee, had production gains of 1 to 9 percent in 1984. North Carolina had the highest percentage increase, 9 percent, and Alabama had the largest volume increase, 585,000 cords. The Midsouth led in the production of pulpwood, supplying 31.2 million cords as compared to the Southeast's production of 27.6 million cords (table 2).

Table 1.--Pulpwood production in the South during 1984, and change since 1983

| State | Pulpwood | Change |
|---|---|---|
| | *--Thousand cords---* | *-----Percent-----* |
| Alabama | 9,573.7 | 7 |
| Arkansas | 4,339.9 | 4 |
| Florida | 4,434.1 | 1 |
| Georgia | 9,815.5 | 2 |
| Louisiana | 5,085.2 | 6 |
| Mississippi | 5,910.0 | 5 |
| North Carolina | 5,234.8 | 9 |
| Oklahoma | 608.2 | -19 |
| South Carolina | 4,472.8 | 2 |
| Tennessee | 1,368.2 | -4 |
| Texas | 4,274.3 | 1 |
| Virginia | 3,612.7 | 3 |
| All states | 58,729.3 | 4 |

### Roundwood

Southern roundwood production increased 3 percent in 1984 to 38.7 million cords (table 3). Roundwood supplied approximately two-thirds of the pulpwood production in 1984. Softwood roundwood made up 68 percent of the roundwood production. In total roundwood production, Alabama led with 6.9 million cords, followed by Georgia with 6.4 million cords (table 4). Mississippi ranked third with 4.2 million cords. North Carolina had the highest percentage increase, 13 percent, and Arkansas had the highest percentage decrease, 13 percent.

Table 2.--Pulpwood production in the Southeast and Midsouth, 1984

| Region and source of wood | All species | Softwood | Hardwood |
|---|---|---|---|
| | ----------Standard cords---------- | | |
| Southeast[1] | | | |
| Roundwood | 18,649,946 | 13,796,512 | 4,853,434 |
| Residues | 8,919,861 | 7,060,160 | 1,859,701 |
| Total | 27,569,807 | 20,856,672 | 6,713,135 |
| Midsouth[2] | | | |
| Roundwood | 20,060,178 | 12,656,464 | 7,403,714 |
| Residues | 11,099,328 | 8,344,777 | 2,754,551 |
| Total | 31,159,506 | 21,001,241 | 10,158,265 |
| Entire South | | | |
| Roundwood | 38,710,124 | 26,452,976 | 12,257,148 |
| Residues | 20,019,189 | 15,404,937 | 4,614,252 |
| Total | 58,729,313 | 41,857,913 | 16,871,400 |

[1]States of Florida, Georgia, North Carolina, South Carolina, and Virginia.

[2]States of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas.

Dennis M. May is Forester, Southern Forest Experiment Station Forest Service--USDA, Starkville, MS 39759.

Table 3.--Roundwood production in the South, by state and species group, 1984 and 1983

| State | Change from 1983 | 1984 | | | 1983 | | |
|---|---|---|---|---|---|---|---|
| | | All species | Softwood | Hardwood | All species | Softwood | Hardwood |
| | *Percent* | *Thousand cords* | | | | | |
| Alabama | 4 | 6,943.5 | 4,244.0 | 2,699.5 | 6,693.5 | 4,153.1 | 2,540.4 |
| Arkansas | -13 | 1,578.4 | 949.9 | 628.5 | 1,809.9 | 1,061.9 | 748.1 |
| Florida | -5 | 3,100.0 | 2,834.5 | 265.5 | 3,262.2 | 2,913.9 | 348.2 |
| Georgia | 1 | 6,434.9 | 5,516.2 | 918.7 | 6,374.8 | 5,479.9 | 894.8 |
| Louisiana | 8 | 3,733.0 | 2,643.6 | 1,089.5 | 3,459.3 | 2,579.8 | 879.5 |
| Mississippi | 4 | 4,239.6 | 2,475.6 | 1,764.0 | 4,081.1 | 2,313.3 | 1,767.9 |
| North Carolina | 13 | 3,394.3 | 2,005.1 | 1,389.3 | 3,004.8 | 1,750.4 | 1,254.4 |
| Oklahoma | -2 | 125.4 | 73.6 | 51.8 | 127.8 | 74.4 | 53.4 |
| South Carolina | 8 | 3,170.6 | 2,147.4 | 1,023.2 | 2,926.9 | 2,089.5 | 837.3 |
| Tennessee | -2 | 1,000.0 | 530.5 | 469.5 | 1,016.0 | 512.4 | 503.6 |
| Texas | 0 | 2,440.4 | 1,739.3 | 701.0 | 2,442.8 | 1,706.6 | 736.1 |
| Virginia | 0 | 2,550.1 | 1,293.3 | 1,256.8 | 2,551.0 | 1,124.8 | 1,426.1 |
| All states | 3 | 38,710.1 | 26,453.0 | 12,257.1 | 37,750.2 | 25,760.2 | 11,989.9 |

These same two States also had the largest volume changes since 1983; North Carolina increased by 389,500 cords, and Arkansas decreased by 231,500 cords (table 3).

Each of a total of 110 counties produced more than 100,000 cords of roundwood in 1984 (Appendix tables A-1 - A-12). Thirty of those counties were in Alabama (table A-1). Of those states having counties with roundwood production in excess of 250,000 cords, Louisiana led with three parishes (table A-5), followed by Alabama (table A-1), Texas (table A-11), and Florida (table A-3) with one county each. Florida's Taylor County produced more roundwood than any county in the South, supplying 355,899 cords, of which 325,999 cords were softwood.

By region, the seven Midsouth States produced more roundwood than the five Southeastern States, 20.1 million cords to 18.7 million cords (table 2). However, the Southeastern States produced more softwood roundwood, 13.8 million cords to the Midsouth's 12.7 million cords. Conversely, the Midsouth produced 53 percent more hardwood roundwood than the Southeast.

Table 4.--Roundwood production in the South, by state and species group, 1984

| State | 1984 | | |
|---|---|---|---|
| | All species | Softwood | Hardwood |
| | *Thousand cords* | | |
| Alabama | 6,943.5 | 4,244.0 | 2,699.5 |
| Arkansas | 1,578.4 | 949.9 | 628.5 |
| Florida | 3,100.0 | 2,834.5 | 265.5 |
| Georgia | 6,434.9 | 5,516.2 | 918.7 |
| Louisiana | 3,733.0 | 2,643.6 | 1,089.5 |
| Mississippi | 4,239.6 | 2,475.6 | 1,764.0 |
| North Carolina | 3,394.3 | 2,005.1 | 1,389.3 |
| Oklahoma | 125.4 | 73.6 | 51.8 |
| South Carolina | 3,170.6 | 2,147.4 | 1,023.2 |
| Tennessee | 1,000.0 | 530.5 | 469.5 |
| Texas | 2,440.4 | 1,739.3 | 701.0 |
| Virginia | 2,550.1 | 1,293.3 | 1,256.8 |
| All states | 38,710.1 | 26,453.0 | 12,257.1 |

## Wood Residues

In 1984, wood residue production in the South increased 6 percent to 20 million cords (table 5). Approximately three-quarters of the wood residues produced were softwoods. Chipped residues accounted for 97 percent of all residues (table 6). Georgia led all states in the production of wood residues with 3.4 million cords, followed by Arkansas with 2.8 million cords. Alabama ranked third with 2.6 million cords. All states, except Oklahoma, South Carolina, and Tennessee, had production increases in 1984 (table 5). Florida had the highest percentage increase, up 20 percent from 1983. Arkansas had the largest volume increase, up almost 400,000 cords. Both Florida and Arkansas offset their roundwood production losses, 162,200 and 231,500 cords, respectively, with gains in wood residue production of 219,400 and 399,200 cords, respectively. Oklahoma had the highest percentage decrease, 23 percent, and the largest volume decrease, 144,300 cords, since 1983 (table 5). The Midsouth topped the Southeast in wood residue production, supplying 55 percent of the total residue volume (table 2).

## TRENDS

From 1974 through 1984, Southern pulpwood production was on the rise, increasing 20 percent from 49.1 to 58.7 million cords (fig. 2). During that same period, roundwood pulpwood production increased from 35.6 to 38.7 million cords, a 9 percent gain. However, because softwood roundwood production had remained relatively

Table 5.--Southern output of wood residues for pulp manufacture, by state and species group, 1984 and 1983

| State | Change from 1983 | 1984 | | | 1983 | | |
|---|---|---|---|---|---|---|---|
| | | All species | Softwood | Hardwood | All species | Softwood | Hardwood |
| | *Percent* | *Thousand cords* | | | | | |
| Alabama | 15 | 2,630.2 | 2,037.0 | 593.2 | 2,295.2 | 1,867.1 | 428.1 |
| Arkansas | 17 | 2,761.5 | 2,017.5 | 744.0 | 2,362.3 | 1,837.2 | 525.2 |
| Florida | 20 | 1,334.1 | 1,242.7 | 91.4 | 1,114.7 | 1,031.8 | 82.9 |
| Georgia | 5 | 3,380.6 | 2,928.7 | 451.9 | 3,215.1 | 2,834.7 | 380.4 |
| Louisiana | 1 | 1,352.2 | 1,008.3 | 343.8 | 1,335.9 | 1,089.7 | 246.2 |
| Mississippi | 8 | 1,670.4 | 1,307.9 | 362.5 | 1,553.2 | 1,268.5 | 284.6 |
| North Carolina | 4 | 1,840.4 | 1,338.4 | 502.0 | 1,776.0 | 1,114.5 | 661.4 |
| Oklahoma | -23 | 482.9 | 307.8 | 175.0 | 627.2 | 399.7 | 227.5 |
| South Carolina | -10 | 1,302.2 | 1,053.5 | 248.7 | 1,442.9 | 1,181.3 | 261.6 |
| Tennessee | -9 | 368.2 | 32.9 | 335.3 | 403.6 | 20.0 | 383.6 |
| Texas | 3 | 1,833.9 | 1,633.3 | 200.7 | 1,787.8 | 1,645.6 | 142.1 |
| Virginia | 12 | 1,062.6 | 496.9 | 565.7 | 948.7 | 467.4 | 481.4 |
| All states | 6 | 20,019.2 | 15,405.0 | 4,614.3 | 18,862.9 | 14,757.6 | 4,105.3 |

Table 6.-- Southern output of wood residues for pulp manufacture, by state and type of residue, 1984

| State | All types | Chips | | | Other residues[1] | | |
|---|---|---|---|---|---|---|---|
| | | All species | Softwood | Hardwood | All species | Softwood | Hardwood |
| | *Thousand cords* | | | | | | |
| Alabama | 2,630.2 | 2,455.7 | 1,194.0 | 541.7 | 174.6 | 123.0 | 51.5 |
| Arkansas | 2,761.5 | 2,684.2 | 1,940.2 | 744.0 | 77.3 | 77.3 | 0.0 |
| Florida | 1,334.1 | 1,270.7 | 1,187.4 | 83.3 | 63.3 | 55.2 | 8.1 |
| Georgia | 3,380.6 | 3,370.4 | 2,928.6 | 441.8 | 10.3 | 0.1 | 10.1 |
| Louisiana | 1,352.2 | 1,351.6 | 1,008.1 | 343.5 | 0.6 | 0.2 | 0.4 |
| Mississippi | 1,670.4 | 1,593.1 | 1,247.5 | 345.6 | 77.3 | 60.4 | 16.9 |
| North Carolina | 1,840.4 | 1,814.7 | 1,325.2 | 489.5 | 25.7 | 13.2 | 12.5 |
| Oklahoma | 482.9 | 452.6 | 277.6 | 175.0 | 30.2 | 30.2 | 0.0 |
| South Carolina | 1,302.2 | 1,298.3 | 1,053.5 | 244.8 | 3.9 | 0.0 | 3.9 |
| Tennessee | 368.2 | 301.2 | 32.7 | 268.5 | 67.0 | 0.2 | 66.8 |
| Texas | 1,833.9 | 1,823.2 | 1,622.7 | 200.5 | 10.7 | 10.5 | 0.2 |
| Virginia | 1,062.6 | 1,029.2 | 487.2 | 542.0 | 33.4 | 9.8 | 23.6 |
| All States | 20,019.2 | 19,444.9 | 15,024.8 | 4,420.2 | 574.3 | 380.2 | 194.1 |

[1]Veneer cores, pole and piling trim, cull material, sawdust, and secondary residues.

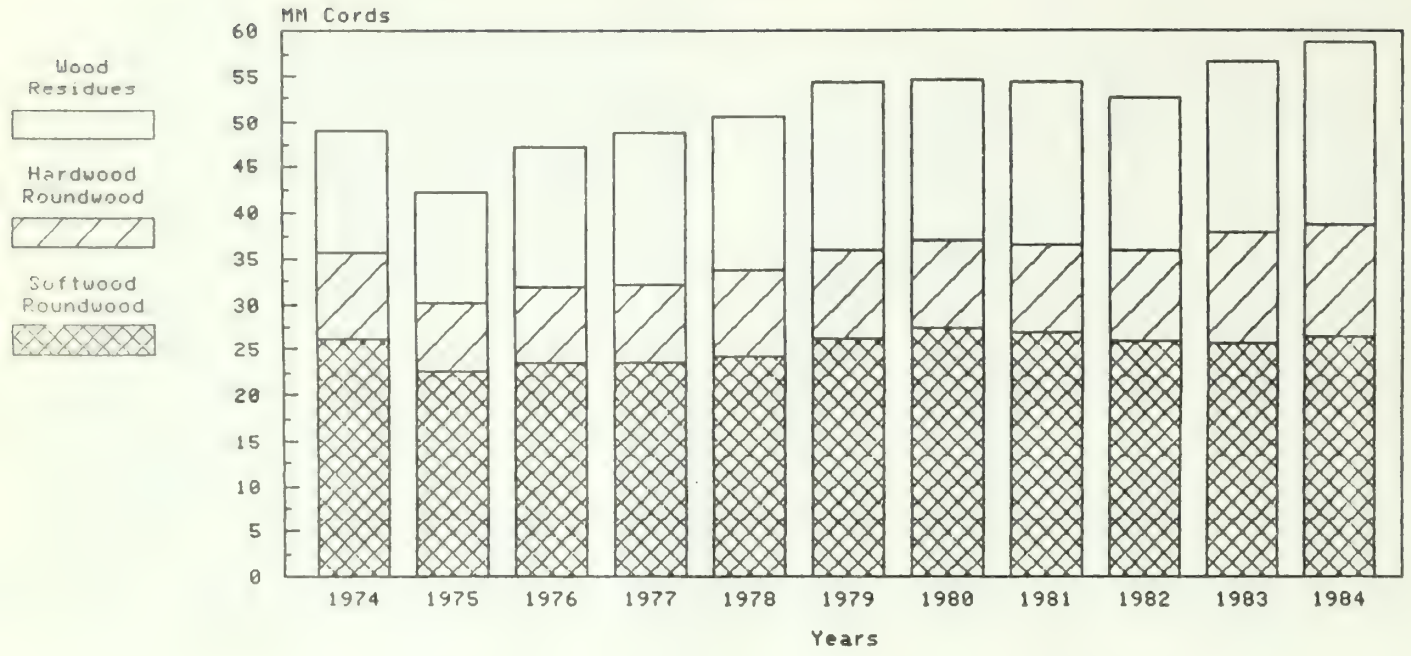


Figure 2.--Pulpwood production trends, 1974-84.

stable, increasing only 1 percent from 26.2 million cords in 1974 to 26.5 million cords in 1984, most of the increase in roundwood production since 1974 can be attributed to the increased utilization of hardwoods for pulpwood. Between 1974 and 1984, hardwood roundwood production increased 30 percent, from 9.4 to 12.2 million cords, and was responsible for 90 percent of the total increase in roundwood production during that period.

The importance of wood residues as a source of fiber in the Southern States can be documented by the 48-percent increase in their production from 1974 through 1984 (fig. 2). In 1974, wood residue production totaled 13.5 million cords and accounted for 27 percent of all pulpwood production. In contrast, chip and other wood residue production in 1984 totaled 20.0 million cords and represented 34 percent of the total pulpwood production. As a result of this increased utilization, increases in wood residue production accounted for approximately two-thirds of the total pulpwood production increase between 1974 and 1984.

## MILLS

In 1984, 108 Southern pulpmills were operating and drawing wood from the 12 Southern States (fig. 3 and table 7). Although down one mill from 1983, pulping capacity of these 108 Southern mills increased to over 120,000 tons per day (table 7). Alabama and Georgia led the South in the number of mills operating with 15 mills each. However, Georgia led in pulping capacity with 18,322 tons per day to Alabama's 17,249 tons per day. In addition, five pulpmills from outside the Southern region were also drawing wood from the South (table 8).

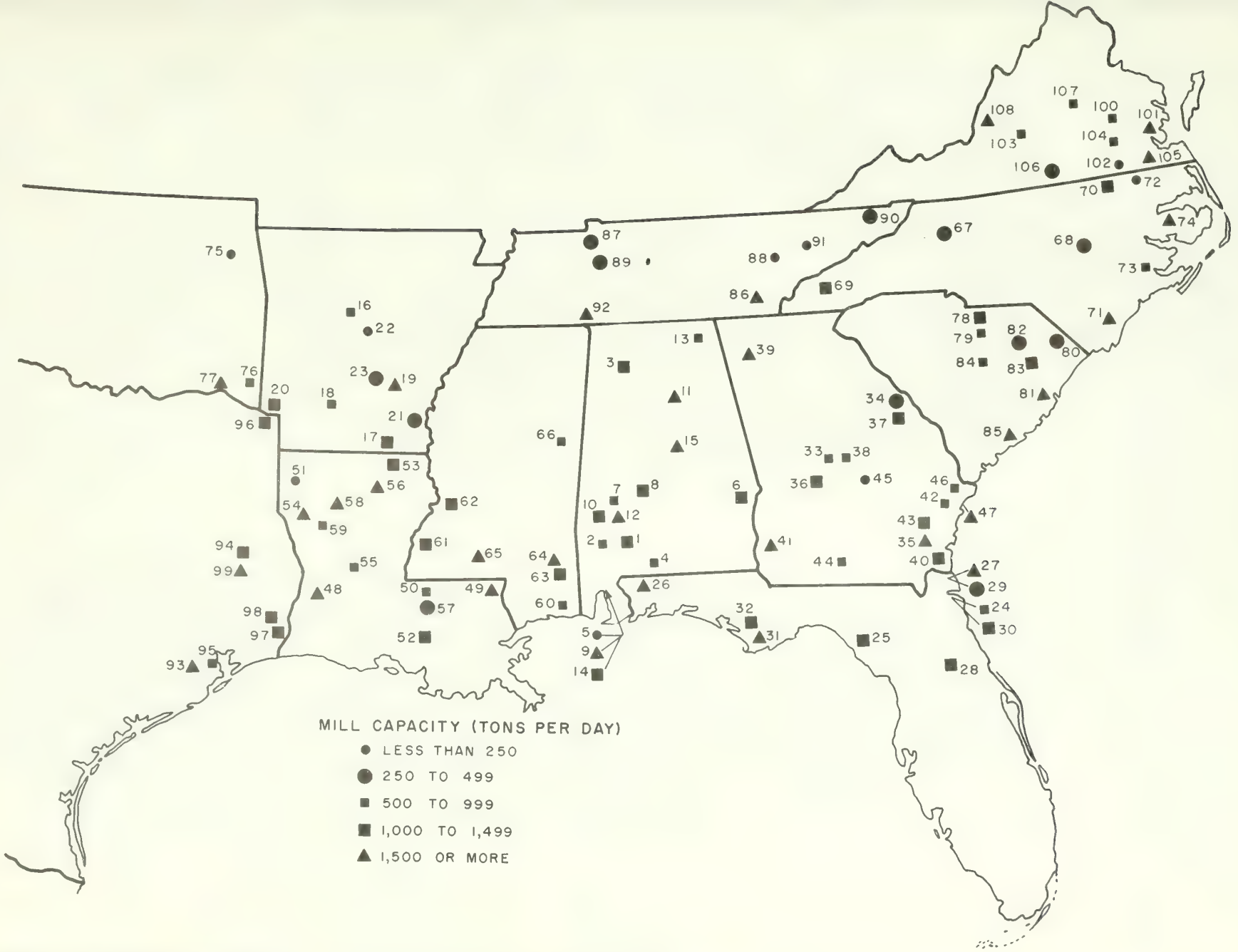


Figure 3.--Capacity of Southern pulpmills operating and drawing wood from the 12 Southern States, 1984.

Table 7.--Southern pulpmills, by process and capacity, 1984

| Location | Map code[1] | Company | Pulping capacity, 24 hours[2] | | | | |
|---|---|---|---|---|---|---|---|
| | | | All processes | Sulfate | Groundwood and other mechanical | Semi-chemical | Soda and sulfite |
| | | | *Tons* | | | | |
| ALABAMA | | | | | | | |
| Claiborne | (1) | Alabama River Pulp Co. | 1,000 | 1,000 | -- | -- | -- |
| Jackson | (2) | Allied Paper Co. | 600 | 600 | -- | -- | -- |
| Courtland | (3) | Champion International Corp. | 1,350 | 1,350 | -- | -- | -- |
| Brewton | (4) | Container Corp. of America | 800 | 800 | -- | -- | -- |
| Mobile | (5) | GAF Corp. | 50 | -- | 50 | -- | -- |
| Mahrt | (6) | Georgia Kraft Co., Alabama Div. | 1,100 | 1,100 | -- | -- | -- |
| Demopolis | (7) | Gulf States Paper Corp. | 525 | 525 | -- | -- | -- |
| Selma | (8) | Hammermill Paper Co. | 1,100 | 1,100 | -- | -- | -- |
| Mobile | (9) | International Paper Co. | 1,500 | 1,200 | 300 | -- | -- |
| Naheola | (10) | James River Corp. | 1,000 | 1,000 | -- | -- | -- |
| Coosa Pines | (11) | Kimberly-Clark Corp. | 1,940 | 1,000 | 940 | -- | -- |
| Pine Hill | (12) | McMillan Bloedel, Inc. | 1,684 | 1,100 | -- | 584 | -- |
| Stevenson | (13) | Mead Paperboard | 850 | -- | -- | 850 | -- |
| Mobile | (14) | Scott Paper Co. | 1,450 | 1,450 | -- | -- | -- |
| Montgomery | (15) | Union Camp Corp. | 2,300 | 2,300 | -- | -- | -- |
| | | Total | 17,249 | 14,525 | 1,290 | 1,434 | -- |
| ARKANSAS | | | | | | | |
| Morrilton | (16) | Arkansas Kraft Corp. | 800 | 800 | -- | -- | -- |
| Crossett | (17) | Georgia-Pacific Corp. | 1,400 | 1,400 | -- | -- | -- |
| Camden | (18) | International Paper Co. | 750 | 750 | -- | -- | -- |
| Pine Bluff | (19) | International Paper Co. | 1,700 | 1,300 | 400 | -- | -- |
| Ashdown | (20) | Nekoosa Papers, Inc. | 1,285 | 1,285 | -- | -- | -- |
| McGehee | (21) | Potlatch Corp. | 450 | 450 | -- | -- | -- |
| Little Rock | (22) | Superwood Corp. | 140 | -- | 140 | -- | -- |
| Pine Bluff | (23) | Weyerhaeuser Co. | 300 | 300 | -- | -- | -- |
| | | Total | 6,825 | 6,285 | 540 | -- | -- |
| FLORIDA | | | | | | | |
| Jacksonville | (24) | Alton Packaging Corp. | 750 | 750 | -- | -- | -- |
| Foley | (25) | The Buckeye Cellulose Corp. | 1,000 | 1,000 | -- | -- | -- |
| Cantonment | (26) | Champion International Corp. | 1,560 | 1,560 | -- | -- | -- |
| Fernandina Beach | (27) | Container Corporation of America | 1,700 | 1,700 | -- | -- | -- |
| Palatka | (28) | Georgia-Pacific Corp. | 1,300 | 1,300 | -- | -- | -- |
| Fernandina Beach | (29) | I.T.T. Rayonier, Inc. | 400 | -- | -- | -- | 400 |
| Jacksonville | (30) | Jacksonville Kraft Paper Co. | 1,400 | 1,400 | -- | -- | -- |
| Port St. Joe | (31) | St. Joe Paper Co. | 1,700 | 1,700 | -- | -- | -- |
| Panama City | (32) | Southwest Forest Industries, Inc. | 1,465 | 1,465 | -- | -- | -- |
| | | Total | 11,275 | 10,875 | -- | -- | 400 |
| GEORGIA | | | | | | | |
| Macon | (33) | Armstrong World Industries | 927 | -- | 927 | -- | -- |
| Augusta | (34) | Augusta Newsprint Co. | 450 | -- | 450 | -- | -- |
| Brunswick | (35) | Brunswick Pulp and Paper Co. | 1,735 | 1,735 | -- | -- | -- |
| Oglethorpe | (36) | Buckeye Cellulose Corp. | 1,200 | 1,200 | -- | -- | -- |
| Augusta | (37) | Continental Forest Industries | 1,200 | 800 | 400 | -- | -- |
| Macon | (38) | Georgia Kraft Co., Mead Div. | 900 | 900 | -- | -- | -- |
| Rome | (39) | Georgia Kraft Co., Krannert Div. | 1,800 | 1,800 | -- | -- | -- |
| St. Marys | (40) | Gilman Paper Co.,St. Marys Kraft Div. | 1,100 | 1,100 | -- | -- | -- |
| Cedar Springs | (41) | Great Southern Paper Co. | 2,270 | 1,870 | -- | 400 | -- |
| Riceboro | (42) | Interstate Paper Corp. | 550 | 550 | -- | -- | -- |
| Jesup | (43) | I.T.T. Rayonier, Inc. | 1,400 | 1,400 | -- | -- | -- |
| Valdosta | (44) | Owens-Illinois, Forest Products Div. | 940 | 940 | -- | -- | -- |
| Dublin | (45) | Southeast Paper Mfg. Co. | 50 | -- | 50 | -- | -- |
| Port Wentworth | (46) | Stone Container Corp. | 800 | 800 | -- | -- | -- |
| Savannah | (47) | Union Camp Corp. | 3,000 | 3,000 | -- | -- | -- |
| | | Total | 18,322 | 16,095 | 1,827 | 400 | -- |

Table 7.--Southern pulpmills, by process and capacity, 1984 (Continued)

| Location | Map code[1] | Company | Pulping capacity, 24 hours[2] | | | | |
|---|---|---|---|---|---|---|---|
| | | | All processes | Sulfate | Groundwood and other mechanical | Semi-chemical | Soda and sulfite |
| | | | *Tons* | | | | |
| LOUISIANA | | | | | | | |
| DeRidder | (48) | Boise Southern Co. | 2,160 | 1,260 | 900 | -- | -- |
| Bogalusa | (49) | Crown Zellerbach Corp. | 1,600 | 1,300 | -- | 300 | -- |
| St. Francisville | (50) | Crown Zellerbach Corp. | 550 | 550 | -- | -- | -- |
| Shreveport | (51) | Genstar Roofing Productions Co. | 225 | -- | -- | 225 | -- |
| Port Hudson | (52) | Georgia-Pacific Corp. | 1,300 | 1,300 | -- | -- | -- |
| Bastrop | (53) | International Paper Co. | 1,100 | 1,100 | -- | -- | -- |
| Pineville | (54) | International Paper Co. | 985 | 985 | -- | -- | -- |
| Mansfield | (55) | International Paper Co. | 1,900 | 1,400 | -- | 500 | -- |
| West Monroe | (56) | Manville Forest Products Corp. | 1,900 | 1,650 | -- | 250 | -- |
| St. Francisville | (57) | St. Francisville Paper Co. | 255 | -- | 255 | -- | -- |
| Hodge | (58) | Stone Container Corp. | 1,650 | 1,300 | -- | 350 | -- |
| Campti | (59) | Willamette Industries, Inc. | 800 | 800 | -- | -- | -- |
| | | Total | 14,425 | 11,645 | 1,155 | 1,625 | -- |
| MISSISSIPPI | | | | | | | |
| Moss Point | (60) | International Paper Co. | 700 | 700 | -- | -- | -- |
| Natchez | (61) | International Paper Co. | 1,100 | 1,100 | -- | -- | -- |
| Vicksburg | (62) | International Paper Co. | 1,180 | 1,180 | -- | -- | -- |
| Monticello | (63) | Georgia-Pacific Corp. | 1,620 | 1,620 | -- | -- | -- |
| New Augusta | (64) | Leaf River Forest Products | 1,050 | 1,050 | -- | -- | -- |
| Laurel | (65) | Masonite Corp. | 3,380 | -- | 3,380 | -- | -- |
| Columbus | (66) | Weyerhaeuser Co. | 500 | -- | -- | 500 | -- |
| | | Total | 9,530 | 5,650 | 3,380 | 500 | -- |
| NORTH CAROLINA | | | | | | | |
| Roaring River | (67) | Abitibi-Price Corp. | 375 | -- | 375 | -- | -- |
| Goldsboro | (68) | Celotex Corp. | 300 | -- | 300 | -- | -- |
| Canton | (69) | Champion International Corp. | 1,400 | 1,400 | -- | -- | -- |
| Roanoke Rapids | (70) | Champion International Corp. | 1,100 | 1,100 | -- | -- | -- |
| Riegelwood | (71) | Federal Paper Board Company, Inc. | 2,000 | 2,000 | -- | -- | -- |
| Conway | (72) | Georgia-Pacific Corp. | 200 | -- | 200 | -- | -- |
| New Bern | (73) | Weyerhaeuser Co. | 725 | 725 | -- | -- | -- |
| Plymouth | (74) | Weyerhaeuser Co. | 1,800 | 1,550 | -- | 250 | -- |
| | | Total | 7,900 | 6,775 | 875 | 250 | -- |
| OKLAHOMA | | | | | | | |
| Pryor | (75) | Georgia-Pacific Corp. | 200 | -- | 200 | -- | -- |
| Broken Bow | (76) | Weyerhaeuser Co. | 920 | -- | 920 | -- | -- |
| Valliant | (77) | Weyerhaeuser Co. | 2,000 | 1,500 | -- | 500 | -- |
| | | Total | 3,120 | 1,500 | 1,120 | 500 | -- |
| SOUTH CAROLINA | | | | | | | |
| Catawba | (78) | Bowaters Carolina Co. | 1,260 | 1,050 | 210 | -- | -- |
| Catawba | (79) | Catawba Newsprint Co. | 500 | -- | 500 | -- | -- |
| Marion | (80) | Celotex Corp. | 450 | -- | 450 | -- | -- |
| Georgetown | (81) | International Paper Co. | 1,713 | 1,613 | -- | 100 | -- |
| Hartsville | (82) | Sonoco Products Co. | 280 | -- | -- | 280 | -- |
| Florence | (83) | Stone Container Corp. | 1,400 | 1,400 | -- | -- | -- |
| Eastover | (84) | Union Camp Corp. | 700 | 700 | -- | -- | -- |
| Charleston | (85) | Westvaco Corp. | 2,435 | 2,435 | -- | -- | -- |
| | | Total | 8,738 | 7,198 | 1,160 | 380 | -- |

Table 7.--Southern pulpmills, by process and capacity, 1984 (Continued)

| Location | Map code[1] | Company | Pulping capacity, 24 hours[2] | | | | |
|---|---|---|---|---|---|---|---|
| | | | All processes | Sulfate | Groundwood and other mechanical | Semi-chemical | Soda and sulfite |
| | | | Tons | | | | |
| TENNESSEE | | | | | | | |
| Calhoun | (86) | Bowaters Southern Paper Corp. | 2,197 | 697 | 1,290 | -- | 210 |
| Paris | (87) | The Celotex Corp. | 300 | -- | -- | 300 | -- |
| Harriman | (88) | Harriman Paperboard Corp. | 190 | -- | -- | 190 | -- |
| New Johnsonville | (89) | Inland Container Corp. | 400 | -- | -- | 400 | -- |
| Kingsport | (90) | Mead Paper | 300 | -- | -- | -- | 300 |
| Knoxville | (91) | Tamko Asphalt Products, Inc. | 120 | -- | 120 | -- | -- |
| Counce | (92) | Tennessee River Pulp and Paper Co. | 1,600 | 1,600 | -- | -- | -- |
| | | Total | 5,107 | 2,297 | 1,410 | 890 | 510 |
| TEXAS | | | | | | | |
| Houston | (93) | Champion International Corp. | 1,850 | 650 | 1,200 | -- | -- |
| Lufkin | (94) | Champion International Corp. | 1,200 | 400 | 800 | -- | -- |
| Pasadena | (95) | Champion International Corp. | 840 | 840 | -- | -- | -- |
| Texarkana | (96) | International Paper Co. | 1,200 | 1,200 | -- | -- | -- |
| Orange | (97) | Owens-Illinois, Inc. | 1,200 | 1,200 | -- | -- | -- |
| Diboll | (98) | Temple-EasTex Inc. | 1,430 | -- | 1,430 | -- | -- |
| Evadale | (99) | Temple-EasTex Inc. | 1,500 | 1,500 | -- | -- | -- |
| | | Total | 9,220 | 5,790 | 3,430 | -- | -- |
| VIRGINIA | | | | | | | |
| Ashland | (100) | Bear Island Paper Co. | 500 | -- | -- | 500 | -- |
| West Point | (101) | Chesapeake Corp. | 1,505 | 1,505 | -- | -- | -- |
| Jarratt | (102) | Georgia-Pacific Corp. | 240 | -- | 240 | -- | -- |
| Big Island | (103) | Owens-Illinois, Forest Products Div. | 575 | -- | -- | 575 | -- |
| Hopewell | (104) | Stone Container Corp. | 970 | 970 | -- | -- | -- |
| Franklin | (105) | Union Camp Corp. | 2,100 | 2,100 | -- | -- | -- |
| Danville | (106) | United States Gypsum Co. | 300 | -- | 300 | -- | -- |
| Riverville | (107) | Virginia Fiber Corp. | 600 | -- | -- | 600 | -- |
| Covington | (108) | Westvaco Corp. | 1,568 | 1,376 | -- | 192 | -- |
| | | Total | 8,358 | 5,951 | 540 | 1,867 | -- |
| | | Total South | 120,069 | 94,586 | 16,727 | 7,846 | 910 |

[1]Corresponds to numbers at locations on mill capacity map, fig. 3.
[2]Southern Pulp and Paper Directory, Vol. 47, No. 10A (October 1984); and other sources.

Table 8.--Other mills using southern pulpwood in 1984, by process and capacity

| Location | Company | Pulping capacity, 24 hours[1] | | | | |
|---|---|---|---|---|---|---|
| | | All processes | Sulfate | Groundwood and other mechanical | Semi-chemical | Soda and sulfite |
| | | Tons | | | | |
| KENTUCKY | | | | | | |
| Hawesville | Willamette Ind. | 600 | -- | -- | 600 | -- |
| Wickliffe | Westvaco Corp. | 739 | 739 | -- | -- | -- |
| MARYLAND | | | | | | |
| Luke | Westvaco Corp. | 866 | 866 | -- | -- | -- |
| PENNSYLVANIA | | | | | | |
| Roaring Springs | Appleton Papers, Inc. | 180 | 180 | -- | -- | -- |
| Spring Grove | P.H. Glatfelter Co. | 550 | 550 | -- | -- | -- |

[1]Southern Pulp and Paper Directory, Vol. 47, No. 10A (October 1984); and other sources.

# Appendix

Table A-1--Round pulpwood production in Alabama, 1984

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Autauga | 99,907 | 59,115 | 40,791 |
| Baldwin | 178,138 | 117,588 | 60,550 |
| Barbour | 98,535 | 64,346 | 34,188 |
| Bibb | 88,092 | 52,781 | 35,311 |
| Blount | 42,407 | 24,672 | 17,734 |
| Bullock | 66,388 | 49,742 | 16,645 |
| Butler | 186,493 | 118,306 | 68,187 |
| Calhoun | 49,477 | 42,707 | 6,769 |
| Chambers | 101,322 | 65,564 | 35,757 |
| Cherokee | 28,434 | 19,438 | 8,996 |
| Chilton | 93,652 | 55,502 | 38,150 |
| Choctaw | 226,717 | 83,893 | 142,823 |
| Clarke | 321,806 | 124,201 | 197,605 |
| Clay | 79,358 | 58,211 | 21,147 |
| Cleburne | 47,487 | 42,492 | 4,994 |
| Coffee | 96,876 | 67,375 | 29,500 |
| Colbert | 57,906 | 26,862 | 31,044 |
| Conecuh | 161,807 | 97,624 | 64,182 |
| Coosa | 98,821 | 69,661 | 29,160 |
| Covington | 107,977 | 83,989 | 23,988 |
| Crenshaw | 112,024 | 67,684 | 44,339 |
| Cullman | 93,724 | 72,659 | 21,065 |
| Dale | 58,578 | 27,424 | 31,153 |
| Dallas | 132,126 | 51,125 | 81,001 |
| De Kalb | 41,590 | 19,852 | 21,737 |
| Elmore | 66,357 | 43,373 | 22,984 |
| Escambia | 113,817 | 100,287 | 13,530 |
| Etowah | 20,886 | 14,424 | 6,462 |
| Fayette | 116,765 | 95,073 | 21,691 |
| Franklin | 118,672 | 52,402 | 66,270 |
| Geneva | 19,957 | 15,446 | 4,510 |
| Greene | 93,101 | 40,552 | 52,548 |
| Hale | 56,906 | 23,050 | 33,855 |
| Henry | 92,466 | 62,829 | 29,636 |
| Houston | 59,933 | 32,729 | 27,203 |
| Jackson | 30,355 | 10,127 | 2,022 |
| Jefferson | 116,742 | 100,624 | 16,117 |
| Lamar | 48,391 | 34,663 | 13,728 |
| Lauderdale | 48,438 | 17,181 | 31,257 |
| Lawrence | 23,246 | 9,306 | 13,940 |
| Lee | 127,377 | 99,203 | 28,174 |
| Limestone | 12,279 | 3,636 | 8,643 |
| Lowndes | 69,589 | 42,972 | 26,617 |
| Macon | 48,981 | 30,665 | 18,315 |
| Madison | 6,848 | 5,652 | 1,196 |
| Marengo | 189,356 | 77,540 | 111,816 |
| Marion | 112,824 | 69,316 | 43,508 |
| Marshall | 35,120 | 25,219 | 9,901 |
| Mobile | 97,113 | 62,277 | 34,836 |
| Monroe | 311,372 | 57,875 | 153,497 |
| Montgomery | 100,426 | 59,885 | 40,540 |
| Morgan | 26,511 | 9,998 | 16,513 |
| Perry | 131,121 | 35,368 | 95,752 |
| Pickens | 174,599 | 104,805 | 69,793 |
| Pike | 123,242 | 83,957 | 39,284 |
| Randolph | 205,502 | 146,452 | 59,049 |
| Russell | 106,747 | 86,348 | 20,399 |
| St. Clair | 76,156 | 64,908 | 11,248 |
| Shelby | 87,534 | 70,341 | 17,192 |
| Sumter | 95,361 | 45,758 | 49,603 |
| Talladega | 117,658 | 103,309 | 14,349 |
| Tallapoosa | 143,155 | 99,689 | 43,466 |
| Tuscaloosa | 119,132 | 77,617 | 41,515 |
| Walker | 227,930 | 188,059 | 39,870 |
| Washington | 169,348 | 93,068 | 76,280 |
| Wilcox | 185,065 | 79,177 | 105,887 |
| Winston | 147,422 | 105,945 | 41,477 |
| All Counties | 6,943,468 | 4,243,951 | 2,699,517 |

[1]Counties with no pulpwood production are omitted.

Table A-2--Round pulpwood production in Arkansas, 1984

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Arkansas | 14 | 5 | 9 |
| Ashley | 100,637 | 58,234 | 42,403 |
| Baxter | 4,399 | 4,392 | 7 |
| Bradley | 33,013 | 20,709 | 12,304 |
| Calhoun | 65,999 | 40,474 | 25,525 |
| Clark | 34,319 | 24,782 | 9,537 |
| Cleburne | 10,673 | 9,029 | 1,644 |
| Cleveland | 27,988 | 20,579 | 7,409 |
| Columbia | 131,574 | 99,337 | 32,237 |
| Conway | 11,682 | 6,750 | 4,932 |
| Cross | 3 | 3 | 0 |
| Dallas | 70,834 | 35,655 | 35,179 |
| Desha | 9,128 | 2 | 9,126 |
| Drew | 87,880 | 27,376 | 60,504 |
| Faulkner | 255 | 101 | 154 |
| Franklin | 4,776 | 3,634 | 1,142 |
| Fulton | 2,406 | 2,406 | 0 |
| Garland | 402 | 177 | 225 |
| Grant | 53,459 | 37,387 | 16,072 |
| Hempstead | 42,482 | 26,004 | 16,478 |
| Hot Spring | 32,140 | 27,273 | 4,867 |
| Howard | 12,500 | 4,778 | 7,722 |
| Independence | 2,293 | 2,005 | 288 |
| Izard | 4,271 | 4,271 | 0 |
| Jefferson | 42,259 | 25,899 | 16,360 |
| Johnson | 6,314 | 3,631 | 2,683 |
| Lafayette | 52,849 | 31,516 | 21,333 |
| Lee | 354 | 354 | 0 |
| Lincoln | 2,620 | 2,036 | 584 |
| Little River | 74,500 | 41,206 | 33,294 |
| Logan | 11,193 | 6,818 | 4,375 |
| Lonoke | 205 | 4 | 201 |
| Miller | 70,811 | 39,655 | 31,156 |
| Montgomery | 9,800 | 4,929 | 4,871 |
| Nevada | 86,019 | 49,853 | 36,166 |
| Newton | 126 | 89 | 37 |
| Ouachita | 82,969 | 57,645 | 25,324 |
| Perry | 9,615 | 3,915 | 5,700 |
| Phillips | 15 | 0 | 15 |
| Pike | 9,875 | 5,329 | 4,546 |
| Polk | 28,342 | 10,355 | 17,987 |
| Pope | 10,069 | 5,619 | 4,450 |
| Prairie | 1,012 | 939 | 73 |
| Pulaski | 7,705 | 2,344 | 5,361 |
| Saline | 76,504 | 50,597 | 25,907 |
| Scott | 16,607 | 10,149 | 6,458 |
| Searcy | 22 | 8 | 14 |
| Sevier | 21,287 | 7,463 | 13,824 |
| Stone | 619 | 615 | 4 |
| Union | 176,984 | 111,659 | 65,324 |
| Van Buren | 20,536 | 11,174 | 9,362 |
| White | 4,843 | 4,693 | 150 |
| Yell | 11,202 | 6,078 | 5,124 |
| All Counties | 1,578,389 | 949,936 | 628,452 |

[1]Counties with no pulpwood production are omitted.

Table A-3--Round pulpwood production in Florida, 1984

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Alachua | 66,314 | 65,164 | 1,150 |
| Baker | 56,744 | 56,685 | 59 |
| Bay | 89,377 | 88,286 | 1,091 |
| Bradford | 30,193 | 30,101 | 92 |
| Brevard | 665 | 142 | 523 |
| Calhoun | 148,353 | 142,614 | 5,739 |
| Charlotte | 9,482 | 9,482 | 0 |
| Citrus | 5,227 | 5,227 | 0 |
| Clay | 55,783 | 50,582 | 5,201 |
| Columbia | 70,538 | 69,414 | 1,124 |
| De Soto | 2,647 | 2,647 | 0 |
| Dixie | 76,681 | 38,731 | 37,950 |
| Duval | 40,249 | 38,046 | 2,203 |
| Escambia | 59,195 | 56,242 | 2,953 |
| Flagler | 40,374 | 40,348 | 26 |
| Franklin | 57,513 | 57,513 | 0 |
| Gadsden | 55,778 | 44,031 | 11,747 |
| Gilchrist | 31,841 | 31,841 | 0 |
| Gulf | 52,662 | 51,644 | 1,018 |
| Hamilton | 54,919 | 52,893 | 2,026 |
| Hardee | 750 | 750 | 0 |
| Hendry | 5,556 | 5,556 | 0 |
| Hernando | 222 | 222 | 0 |
| Highlands | 1,074 | 1,074 | 0 |
| Hillsborough | 800 | 800 | 0 |
| Holmes | 44,880 | 33,933 | 10,947 |
| Jackson | 125,342 | 91,894 | 33,448 |
| Jefferson | 60,919 | 59,937 | 982 |
| Lafayette | 70,875 | 70,602 | 273 |
| Lake | 15,580 | 15,580 | 0 |
| Leon | 38,684 | 38,631 | 53 |
| Levy | 120,664 | 90,577 | 30,087 |
| Liberty | 92,105 | 81,926 | 10,179 |
| Madison | 74,549 | 51,320 | 23,229 |
| Manatee | 3,291 | 3,291 | 0 |
| Marion | 111,877 | 110,727 | 1,150 |
| Nassau | 125,325 | 109,222 | 16,103 |
| Okaloosa | 31,792 | 29,893 | 1,899 |
| Okeechobee | 3,443 | 3,443 | 0 |
| Orange | 5,585 | 5,585 | 0 |
| Osceola | 2,700 | 2,700 | 0 |
| Pasco | 24,310 | 24,310 | 0 |
| Polk | 15,749 | 15,749 | 0 |
| Putnam | 121,253 | 115,503 | 5,750 |
| St. Johns | 115,784 | 112,285 | 3,499 |
| Santa Rosa | 88,923 | 87,703 | 1,220 |
| Seminole | 1,849 | 1,040 | 809 |
| Sumter | 4,576 | 4,576 | 0 |
| Suwannee | 107,569 | 107,400 | 169 |
| Taylor | 355,899 | 325,999 | 29,900 |
| Union | 28,924 | 28,924 | 0 |
| Volusia | 93,214 | 89,032 | 4,182 |
| Wakulla | 53,508 | 53,508 | 0 |
| Walton | 82,781 | 76,143 | 6,638 |
| Washington | 65,120 | 53,073 | 12,047 |
| All Counties | 3,100,007 | 2,834,541 | 265,466 |

[1]Counties with no pulpwood production are omitted.

Table A-4--Round pulpwood production in Georgia, 1984

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Appling | 132,836 | 126,885 | 5,951 |
| Atkinson | 92,834 | 91,308 | 1,526 |
| Bacon | 99,059 | 97,249 | 1,810 |
| Baker | 16,897 | 15,845 | 1,052 |
| Baldwin | 47,077 | 31,750 | 15,327 |
| Banks | 5,519 | 5,519 | 0 |
| Barrow | 2,227 | 2,140 | 87 |
| Bartow | 58,533 | 55,560 | 2,973 |
| Ben Hill | 68,580 | 51,628 | 16,952 |
| Berrien | 35,954 | 35,892 | 62 |
| Bibb | 11,224 | 11,224 | 0 |
| Bleckley | 927 | 295 | 632 |
| Brantley | 97,373 | 92,479 | 4,894 |
| Brooks | 17,375 | 17,089 | 286 |
| Bryan | 64,373 | 53,059 | 11,314 |
| Bulloch | 79,672 | 71,427 | 8,245 |
| Burke | 61,551 | 34,140 | 27,411 |
| Butts | 18,807 | 18,324 | 483 |
| Calhoun | 31,952 | 29,595 | 2,357 |
| Camden | 161,649 | 134,003 | 27,646 |
| Candler | 18,141 | 14,050 | 4,091 |
| Carroll | 85,960 | 78,687 | 7,273 |
| Catoosa | 7,340 | 7,217 | 123 |
| Charlton | 122,360 | 111,249 | 11,111 |
| Chatham | 84,538 | 65,814 | 18,724 |
| Chattahoochee | 4,932 | 4,050 | ,882 |
| Chattooga | 74,126 | 35,875 | 38,251 |
| Cherokee | 41,796 | 39,333 | 2,463 |
| Clarke | 6,479 | 6,479 | 0 |
| Clay | 24,580 | 18,659 | 5,921 |
| Clayton | 40 | 40 | 0 |
| Clinch | 163,463 | 157,945 | 5,518 |
| Cobb | 22,856 | 22,781 | 75 |
| Coffee | 109,464 | 99,499 | 9,965 |
| Colquitt | 52,631 | 51,800 | 831 |
| Columbia | 24,352 | 15,302 | 9,050 |
| Cook | 13,085 | 12,685 | 400 |
| Coweta | 60,793 | 56,832 | 3,961 |
| Crawford | 86,461 | 78,409 | 8,052 |
| Crisp | 35,773 | 35,529 | 244 |
| Dade | 1,400 | 1,400 | 0 |
| Dawson | 9,172 | 8,792 | 380 |
| Decatur | 59,616 | 43,651 | 15,965 |
| De Kalb | 2,203 | 2,203 | 0 |
| Dodge | 100,064 | 85,043 | 15,021 |
| Dooly | 20,941 | 20,054 | 887 |
| Dougherty | 18,713 | 15,480 | 3,233 |
| Douglas | 34,130 | 34,097 | 33 |
| Early | 45,003 | 33,517 | 11,486 |
| Echols | 21,427 | 20,940 | 487 |
| Effingham | 54,972 | 45,106 | 9,866 |
| Elbert | 13,828 | 12,277 | 1,551 |
| Emanuel | 57,103 | 45,249 | 11,854 |
| Evans | 74,121 | 60,696 | 13,425 |
| Fannin | 9,130 | 9,130 | 0 |
| Fayette | 28,697 | 27,513 | 1,184 |
| Floyd | 95,174 | 86,720 | 8,454 |
| Forsyth | 11,824 | 11,634 | 190 |
| Franklin | 10,969 | 8,901 | 2,068 |
| Fulton | 8,258 | 8,083 | 175 |
| Gilmer | 6,187 | 5,965 | 222 |
| Glascock | 17,994 | 12,086 | 5,908 |
| Glynn | 130,663 | 107,068 | 23,595 |
| Gordon | 55,020 | 52,674 | 2,346 |
| Grady | 21,104 | 19,876 | 1,228 |
| Greene | 22,969 | 21,361 | 1,608 |
| Gwinnett | 28,187 | 26,335 | 1,852 |
| Habersham | 2,962 | 2,962 | 0 |
| Hall | 13,827 | 13,461 | 457 |
| Hancock | 49,073 | 42,348 | 6,725 |
| Haralson | 36,179 | 31,336 | 4,843 |
| Harris | 65,536 | 58,891 | 6,645 |
| Hart | 3,421 | 3,273 | 148 |
| Heard | 48,617 | 46,212 | 2,405 |
| Henry | 51,430 | 47,622 | 3,808 |
| Houston | 22,859 | 22,715 | |
| Irwin | 800 | 484 | |
| Jackson | 24,235 | 22,548 | 1,687 |
| Jasper | 32,137 | 31,953 | 184 |
| Jeff Davis | 43,575 | 41,298 | 2,277 |
| Jefferson | 38,931 | 24,147 | 14,784 |
| Jenkins | 28,164 | 26,167 | 1,997 |
| Johnson | 6,266 | 5,071 | 1,195 |
| Jones | 49,239 | 42,209 | 7,030 |
| Lamar | 29,144 | 28,830 | 314 |
| Lanier | 18,217 | 17,512 | 705 |
| Laurens | 04,792 | 59,353 | 45,439 |
| Lee | 11,059 | 9,726 | 1,333 |
| Liberty | 62,158 | 47,129 | 15,029 |
| Lincoln | 60,707 | 22,508 | 38,199 |
| Long | 96,574 | 81,233 | 15,341 |
| Lowndes | 40,736 | 38,179 | 2,557 |
| Lumpkin | 2,146 | 2,066 | 80 |

Table A-4--Round pulpwood production in Georgia, 1984 (Continued)

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| McDuffie | 7,359 | 7,359 | 0 |
| McIntosh | 62,466 | 56,662 | 5,804 |
| Macon | 34,880 | 34,880 | 0 |
| Madison | 5,798 | 5,798 | 0 |
| Marion | 36,051 | 29,988 | 6,063 |
| Meriwether | 74,965 | 61,686 | 13,279 |
| Miller | 28,678 | 17,872 | 10,806 |
| Mitchell | 47,084 | 45,275 | 1,809 |
| Monroe | 60,446 | 58,752 | 1,694 |
| Montgomery | 19,202 | 16,868 | 2,334 |
| Morgan | 6,894 | 6,280 | 614 |
| Murray | 27,540 | 26,537 | 1,003 |
| Muscogee | 2,561 | 2,506 | 55 |
| Newton | 3,378 | 3,378 | 0 |
| Oconee | 23,602 | 14,815 | 8,787 |
| Oglethorpe | 72,576 | 58,622 | 13,954 |
| Paulding | 18,826 | 17,326 | 1,500 |
| Peach | 2,742 | 2,742 | 0 |
| Pickens | 28,898 | 28,313 | 585 |
| Pierce | 43,910 | 38,787 | 5,123 |
| Pike | 31,485 | 23,311 | 8,174 |
| Polk | 29,023 | 24,347 | 4,676 |
| Pulaski | 20,213 | 19,658 | 555 |
| Putnam | 14,195 | 10,630 | 3,565 |
| Quitman | 39,244 | 29,690 | 9,554 |
| Rabun | 2,595 | 790 | 1,805 |
| Randolph | 66,089 | 56,702 | 9,387 |
| Richmond | 11,138 | 6,137 | 5,001 |
| Rockdale | 37 | 37 | 0 |
| Schley | 28,412 | 22,189 | 6,223 |
| Screven | 44,899 | 26,968 | 17,931 |
| Seminole | 4,151 | 4,140 | 11 |
| Spalding | 11,804 | 11,711 | 93 |
| Stephens | 9,501 | 4,500 | 5,001 |
| Stewart | 80,827 | 70,254 | 10,573 |
| Sumter | 48,675 | 47,454 | 1,221 |
| Talbot | 63,521 | 51,094 | 12,427 |
| Taliaferro | 12,931 | 12,931 | 0 |
| Tattnall | 101,709 | 88,619 | 13,090 |
| Taylor | 24,339 | 21,478 | 2,861 |
| Telfair | 56,715 | 47,032 | 9,683 |
| Terrell | 25,206 | 24,365 | 841 |
| Thomas | 75,447 | 65,942 | 9,505 |
| Tift | 14,839 | 14,491 | 348 |
| Toombs | 32,891 | 28,779 | 4,112 |
| Towns | 1,245 | 1,245 | 0 |
| Treutlen | 10,628 | 7,767 | 2,861 |
| Troup | 117,310 | 101,532 | 15,778 |
| Turner | 8,932 | 8,826 | 106 |
| Twiggs | 17,413 | 14,915 | 2,498 |
| Union | 7,677 | 7,677 | 0 |
| Upson | 26,981 | 26,071 | 910 |
| Walker | 30,846 | 28,900 | 1,946 |
| Walton | 2,018 | 2,018 | 0 |
| Ware | 111,142 | 106,201 | 4,941 |
| Warren | 41,407 | 31,379 | 10,028 |
| Washington | 80,516 | 62,404 | 18,112 |
| Wayne | 149,817 | 139,340 | 10,477 |
| Webster | 41,017 | 32,377 | 8,640 |
| Wheeler | 33,146 | 27,561 | 5,585 |
| White | 568 | 568 | 0 |
| Whitfield | 41,658 | 41,336 | 322 |
| Wilcox | 26,339 | 22,006 | 4,333 |
| Wilkes | 73,470 | 32,131 | 41,339 |
| Wilkinson | 46,804 | 31,355 | 15,449 |
| Worth | 62,581 | 60,171 | 2,680 |
| All Counties | 6,434,870 | 5,516,215 | 918,655 |

[1]Counties with no pulpwood production are omitted.

Table A-5--Round pulpwood production in Louisiana, 1984

| Parish[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Acadia | 1,436 | 1,319 | 117 |
| Allen | 119,665 | 91,263 | 28,401 |
| Ascension | 4,413 | 1,158 | 3,255 |
| Avoyelles | 23,742 | 837 | 22,905 |
| Beauregard | 280,749 | 268,957 | 11,792 |
| Bienville | 279,630 | 228,163 | 51,467 |
| Bossier | 74,712 | 56,199 | 18,512 |
| Caddo | 55,544 | 37,049 | 18,495 |
| Calcasieu | 58,287 | 55,848 | 2,439 |
| Caldwell | 100,814 | 39,214 | 61,600 |
| Cameron | 6 | 6 | D |
| Catahoula | 37,328 | 19,098 | 18,230 |
| Claiborne | 141,422 | 116,518 | 24,904 |
| Concordia | 23,696 | 56 | 23,640 |
| De Soto | 137,084 | 88,333 | 48,751 |
| East Baton Rouge | 7,134 | 3,269 | 3,865 |
| East Carroll | 4,728 | D | 4,728 |
| East Feliciana | 24,539 | 16,412 | 8,127 |
| Evangeline | 21,834 | 18,563 | 3,270 |
| Franklin | 5,476 | 1,377 | 4,099 |
| Grant | 73,986 | 52,734 | 21,252 |
| Iberia | 20 | 0 | 20 |
| Iberville | 7,340 | 35 | 7,305 |
| Jackson | 130,801 | 111,376 | 19,425 |
| Jefferson | 18 | B | 10 |
| Jefferson Davis | 11,370 | 10,920 | 450 |
| Lafayette | 5,173 | 3,064 | 2,109 |
| La Salle | 120,447 | 103,865 | 16,581 |
| Lincoln | 134,389 | 106,798 | 27,591 |
| Livingston | 35,289 | 25,838 | 9,451 |
| Madison | 102,848 | 35 | 102,813 |
| Morehouse | 33,332 | 19,899 | 13,433 |
| Natchitoches | 181,601 | 123,199 | 58,401 |
| Ouachita | 84,556 | 52,865 | 31,690 |
| Pointe Coupee | 2,255 | 0 | 2,255 |
| Rapides | 134,670 | 117,125 | 17,545 |
| Red River | 49,017 | 31,116 | 17,901 |
| Richland | 647 | 115 | 532 |
| Sabine | 230,110 | 151,114 | 78,995 |
| St. Charles | 166 | 0 | 166 |
| St. Helena | 47,296 | 31,869 | 15,427 |
| St. James | 209 | 0 | 209 |
| St. John the Baptist | 66 | 0 | 66 |
| St. Landry | 693 | 61 | 632 |
| St. Martin | 2,117 | 0 | 2,117 |
| St. Tammany | 32,194 | 30,595 | 1,598 |
| Tangipahoa | 43,309 | 31,496 | 11,813 |
| Tensas | 24,643 | 82 | 24,561 |
| Union | 212,710 | 108,244 | 104,466 |
| Vermilion | 13 | 13 | D |
| Vernon | 260,696 | 225,233 | 35,463 |
| Washington | 99,351 | 82,213 | 17,137 |
| Webster | 70,561 | 49,445 | 21,115 |
| West Baton Rouge | 1,000 | 142 | 858 |
| West Carroll | 681 | 23 | 658 |
| West Feliciana | 9,779 | 3,653 | 6,126 |
| Winn | 187,410 | 126,738 | 60,671 |
| All Parishes | 3,733,020 | 2,643,568 | 1,089,451 |

[1]Parishes with no pulpwood production are omitted.

Table A-6--Round pulpwood production in Mississippi, 1984

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Adams | 42,081 | 2,960 | 39,121 |
| Alcorn | 36,097 | 27,151 | 8,945 |
| Amite | 75,616 | 49,100 | 26,516 |
| Attala | 131,801 | 86,534 | 45,266 |
| Benton | 9,531 | 7,363 | 2,167 |
| Bolivar | 6,920 | 37 | 6,882 |
| Calhoun | 24,605 | 20,952 | 3,652 |
| Carroll | 39,134 | 22,082 | 17,052 |
| Chickasaw | 31,104 | 28,792 | 2,311 |
| Choctaw | 50,963 | 33,982 | 16,981 |
| Claiborne | 68,664 | 21,750 | 46,914 |
| Clarke | 184,030 | 79,514 | 104,515 |
| Clay | 30,372 | 22,987 | 7,384 |
| Copiah | 131,895 | 57,354 | 74,540 |
| Covington | 79,335 | 37,813 | 41,521 |
| De Soto | 984 | 973 | 11 |
| Forrest | 41,865 | 26,954 | 14,910 |
| Franklin | 83,520 | 33,462 | 50,057 |
| George | 48,376 | 33,223 | 15,153 |
| Greene | 184,365 | 89,795 | 94,570 |
| Grenada | 26,038 | 18,675 | 7,363 |
| Hancock | 35,628 | 33,072 | 2,556 |
| Harrison | 34,477 | 32,113 | 2,363 |
| Hinds | 32,684 | 9,885 | 22,799 |
| Holmes | 79,123 | 45,583 | 33,539 |
| Humphreys | 137 | 3 | 134 |
| Issaquena | 5,731 | 12 | 5,719 |
| Itawamba | 79,535 | 61,477 | 18,058 |
| Jackson | 50,524 | 45,324 | 5,200 |
| Jasper | 123,326 | 51,007 | 72,319 |
| Jefferson | 89,675 | 25,698 | 63,976 |
| Jefferson Davis | 45,477 | 26,053 | 19,424 |
| Jones | 89,273 | 46,102 | 43,171 |
| Kemper | 106,783 | 62,406 | 44,377 |
| Lafayette | 14,970 | 14,841 | 129 |
| Lamar | 47,903 | 41,410 | 6,493 |
| Lauderdale | 147,254 | 69,182 | 78,072 |
| Lawrence | 78,670 | 49,238 | 29,432 |
| Leake | 104,153 | 66,099 | 38,054 |
| Lee | 19,266 | 11,666 | 7,600 |
| Leflore | 390 | 100 | 290 |
| Lincoln | 73,268 | 51,110 | 22,157 |
| Lowndes | 8,196 | 7,056 | 1,140 |
| Madison | 19,473 | 10,096 | 9,377 |
| Marion | 45,507 | 29,751 | 15,756 |
| Marshall | 4,663 | 4,660 | 3 |
| Monroe | 32,219 | 28,922 | 3,297 |
| Montgomery | 45,816 | 27,340 | 18,475 |
| Neshoba | 87,365 | 38,266 | 49,099 |
| Newton | 99,214 | 51,681 | 47,532 |
| Pearl River | 107,993 | 102,117 | 5,876 |
| Perry | 109,104 | 86,656 | 22,448 |
| Pike | 77,046 | 50,459 | 26,586 |
| Pontotoc | 23,019 | 15,125 | 7,893 |
| Prentiss | 41,294 | 28,613 | 12,681 |
| Quitman | 118 | 19 | 99 |
| Rankin | 97,469 | 58,212 | 39,257 |
| Scott | 62,663 | 43 855 | 18,808 |
| Sharkey | 7,297 | 0 | 7,297 |
| Simpson | 61,092 | 27,723 | 33,369 |
| Smith | 71,579 | 29,842 | 41,736 |
| Stone | 57,247 | 44,891 | 12,355 |
| Sunflower | 26 | 15 | 11 |
| Tallahatchie | 2,677 | 1,656 | 1,021 |
| Tate | 358 | 322 | 36 |
| Tippah | 38,504 | 27,729 | 10,775 |
| Tishomingo | 82,232 | 56,492 | 25,739 |
| Tunica | 4,584 | 1,028 | 3,556 |
| Union | 19,475 | 17,281 | 2,194 |
| Walthall | 25,029 | 16,628 | 8,400 |
| Warren | 19,470 | 967 | 18,503 |
| Washington | 1,949 | 451 | 1,498 |
| Wayne | 117,275 | 49,829 | 67,445 |
| Webster | 32,643 | 21,934 | 10,708 |
| Wilkinson | 44,260 | 14,707 | 29,553 |
| Winston | 49,714 | 34,024 | 15,690 |
| Yalobusha | 20,941 | 15,170 | 5,771 |
| Yazoo | 9,689 | 3,108 | 6,581 |
| All Counties | 4,239,584 | 2,475,609 | 1,763,974 |

[1]Counties with no pulpwood production are omitted.

Table A-7--Round pulpwood production in North Carolina, 1984

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Alamance | 11,023 | 9,108 | 1,915 |
| Alexander | 11,104 | 10,167 | 937 |
| Alleghany | 21 | 0 | 21 |
| Anson | 105,398 | 63,053 | 42,345 |
| Ashe | 24 | 0 | 24 |
| Avery | 18 | 0 | 18 |
| Beaufort | 156,578 | 111,951 | 44,627 |
| Bertie | 156,703 | 63,361 | 93,342 |
| Bladen | 149,732 | 62,775 | 86,957 |
| Brunswick | 128,397 | 107,055 | 21,342 |
| Buncombe | 2,236 | 319 | 1,917 |
| Burke | 25,770 | 13,786 | 11,984 |
| Cabarrus | 7,997 | 7,936 | 61 |
| Caldwell | 14,835 | 6,448 | 8,387 |
| Camden | 10,957 | 1,822 | 9,135 |
| Carteret | 25,805 | 22,559 | 3,246 |
| Caswell | 8,206 | 1,488 | 6,718 |
| Catawba | 4,963 | 4,461 | 502 |
| Chatham | 40,909 | 23,539 | 17,370 |
| Cherokee | 36,894 | 27,958 | 8,936 |
| Chowan | 25,277 | 8,352 | 16,925 |
| Clay | 4,376 | 3,942 | 434 |
| Cleveland | 34,192 | 30,856 | 3,336 |
| Columbus | 124,496 | 71,453 | 53,043 |
| Craven | 267,124 | 197,156 | 69,968 |
| Cumberland | 48,755 | 23,703 | 25,052 |
| Currituck | 6,693 | 1,693 | 5,000 |
| Dare | 15,177 | 7,185 | 7,992 |
| Davidson | 10,319 | 6,207 | 4,112 |
| Davie | 1,755 | 1,113 | 642 |
| Duplin | 111,362 | 70,882 | 40,480 |
| Durham | 31,465 | 10,660 | 20,805 |
| Edgecombe | 48,995 | 19,466 | 29,529 |
| Forsyth | 1,254 | 316 | 938 |
| Franklin | 59,328 | 37,429 | 21,899 |
| Gaston | 6,942 | 6,756 | 186 |
| Gates | 87,812 | 37,484 | 50,328 |
| Graham | 1,644 | 343 | 1,301 |
| Granville | 26,510 | 15,918 | 10,592 |
| Greene | 11,985 | 2,686 | 9,299 |
| Guilford | 4,012 | 1,079 | 2,933 |
| Halifax | 79,844 | 43,608 | 36,236 |
| Harnett | 9,845 | 5,303 | 4,542 |
| Haywood | 7,081 | 2,850 | 4,231 |
| Henderson | 4,845 | 579 | 4,266 |
| Hertford | 48,696 | 31,385 | 17,311 |
| Hoke | 17,991 | 15,646 | 2,345 |
| Hyde | 35,911 | 12,537 | 23,374 |
| Iredell | 9,081 | 8,207 | 874 |
| Jackson | 2,615 | 117 | 2,498 |
| Johnston | 29,115 | 9,013 | 20,102 |
| Jones | 75,399 | 60,657 | 14,742 |
| Lee | 26,897 | 19,472 | 7,425 |
| Lenoir | 26,320 | 17,257 | 9,063 |
| Lincoln | 9,404 | 9,195 | 209 |
| McDowell | 14,673 | 5,446 | 9,227 |
| Macon | 939 | 0 | 939 |
| Madison | 4,468 | 2,819 | 1,649 |
| Martin | 57,629 | 38,098 | 19,531 |
| Mecklenburg | 6,594 | 6,553 | 41 |
| Mitchell | 4,067 | 7 | 4,060 |
| Montgomery | 41,151 | 14,064 | 27,087 |
| Moore | 44,306 | 21,614 | 22,692 |
| Nash | 39,192 | 16,197 | 22,995 |
| New Hanover | 8,253 | 7,447 | 806 |
| Northampton | 46,360 | 14,990 | 31,370 |
| Onslow | 44,488 | 31,203 | 13,285 |
| Orange | 7,485 | 2,060 | 5,425 |
| Pamlico | 43,843 | 30,324 | 13,519 |
| Pasquotank | 3,669 | 1,535 | 2,134 |
| Pender | 105,917 | 69,380 | 36,537 |
| Perquimans | 25,168 | 12,375 | 12,793 |
| Person | 9,764 | 1,668 | 8,096 |
| Pitt | 46,320 | 19,052 | 27,268 |
| Polk | 33,429 | 18,120 | 15,309 |
| Randolph | 5,094 | 2,953 | 2,141 |
| Richmond | 42,538 | 21,894 | 20,644 |
| Robeson | 67,097 | 46,416 | 20,681 |
| Rockingham | 21,983 | 13,757 | 8,226 |
| Rowan | 10,245 | 8,731 | 1,514 |
| Rutherford | 50,844 | 36,632 | 14,212 |
| Sampson | 71,591 | 44,034 | 27,557 |
| Scotland | 17,516 | 13,783 | 3,733 |
| Stanly | 2,114 | 1,696 | 418 |
| Stokes | 3,550 | 1,634 | 1,916 |
| Surry | 6,517 | 2,734 | 3,783 |
| Swain | 10,318 | 5,420 | 4,898 |
| Transylvania | 4,212 | 2,187 | 2,025 |
| Tyrrell | 4,940 | 3,794 | 1,146 |
| Union | 9,996 | 9,877 | 119 |
| Vance | 17,526 | 7,367 | 10,159 |
| Wake | 72,979 | 41,679 | 31,300 |
| Warren | 62,598 | 50,749 | 11,849 |
| Washington | 47,186 | 25,235 | 21,951 |
| Wayne | 7,568 | 4,916 | 2,652 |
| Wilkes | 10,362 | 3,564 | 6,798 |
| Wilson | 47,205 | 14,387 | 32,818 |
| Yadkin | 1,228 | 318 | 910 |
| Yancey | 1,331 | 61 | 1,270 |
| All Counties | 3,394,340 | 2,005,061 | 1,389,279 |

[1]Counties with no pulpwood production are omitted.

Table A-8--Round pulpwood production in Oklahoma, 1984

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Choctaw | 8,500 | 3,060 | 5,440 |
| Haskell | 933 | 933 | 0 |
| Latimer | 10,947 | 5,636 | 5,311 |
| Le Flore | 25,205 | 14,834 | 10,371 |
| McCurtain | 39,374 | 28,599 | 10,775 |
| Pushmataha | 40,421 | 20,505 | 19,916 |
| All counties | 125,380 | 73,567 | 51,813 |

[1]Counties with no pulpwood production are omitted.

Table A-9--Round pulpwood production in South Carolina, 1984

| County[1] | All species | Softwood | Hardwood | County[1] | All species | Softwood | Hardwood |
|---|---|---|---|---|---|---|---|
| | *Standard cords* | | | | *Standard cords* | | |
| Abbeville | 39,959 | 29,351 | 10,608 | Jasper | 91,991 | 67,641 | 24,350 |
| Aiken | 42,631 | 24,614 | 18,017 | | | | |
| Allendale | 50,517 | 26,320 | 24,197 | Kershaw | 195,256 | 151,270 | 43,986 |
| Anderson | 47,917 | 40,405 | 7,512 | | | | |
| | | | | Lancaster | 81,305 | 66,950 | 14,355 |
| Bamberg | 18,099 | 7,480 | 10,619 | Laurens | 56,026 | 45,673 | 10,353 |
| Barnwell | 15,906 | 9,126 | 6,780 | Lee | 10,186 | 8,018 | 2,168 |
| Beaufort | 27,312 | 21,615 | 5,697 | Lexington | 77,810 | 71,400 | 6,410 |
| Berkeley | 134,247 | 111,010 | 23,237 | | | | |
| | | | | McCormick | 57,466 | 48,110 | 9,356 |
| Calhoun | 3,868 | 1,595 | 2,273 | Marion | 38,665 | 14,050 | 24,615 |
| Charleston | 33,950 | 18,266 | 15,684 | Marlboro | 43,308 | 26,314 | 16,994 |
| Cherokee | 34,490 | 30,182 | 4,308 | | | | |
| Chester | 91,431 | 71,379 | 20,052 | Newberry | 93,364 | 63,254 | 30,110 |
| Chesterfield | 88,296 | 65,265 | 23,031 | | | | |
| Clarendon | 23,124 | 13,366 | 9,758 | Oconee | 32,949 | 17,967 | 14,982 |
| Colleton | 145,815 | 88,014 | 57,801 | Orangeburg | 142,319 | 67,494 | 74,825 |
| | | | | | | | |
| Darlington | 30,896 | 10,707 | 20,189 | Pickens | 34,066 | 20,393 | 13,673 |
| Dillon | 27,649 | 18,418 | 9,231 | | | | |
| Dorchester | 162,665 | 75,395 | 87,270 | Richland | 64,037 | 54,615 | 9,422 |
| | | | | | | | |
| Edgefield | 47,442 | 34,681 | 12,761 | Saluda | 61,788 | 25,035 | 36,753 |
| | | | | Spartanburg | 74,246 | 60,868 | 13,378 |
| Fairfield | 152,280 | 116,560 | 35,720 | Sumter | 29,955 | 20,375 | 9,580 |
| Florence | 37,944 | 26,556 | 11,388 | | | | |
| | | | | Union | 66,560 | 46,548 | 20,012 |
| Georgetown | 145,148 | 92,301 | 52,847 | | | | |
| Greenville | 27,959 | 16,719 | 11,240 | Williamsburg | 115,176 | 72,412 | 42,764 |
| Greenwood | 100,276 | 46,153 | 54,123 | | | | |
| | | | | York | 76,357 | 72,580 | 3,777 |
| Hampton | 94,658 | 58,869 | 35,789 | | | | |
| Horry | 103,341 | 72,128 | 31,213 | All Counties | 3,170,650 | 2,147,442 | 1,023,208 |

[1]Counties with no pulpwood production are omitted.

Table A-10--Round pulpwood production in Tennessee, 1984

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Anderson | 9,987 | 9,950 | 37 |
| Benton | 19,508 | 6,731 | 12,776 |
| Bledsoe | 18,879 | 2,222 | 16,656 |
| Blount | 14,758 | 10,781 | 3,976 |
| Bradley | 39,808 | 34,883 | 4,924 |
| Carroll | 7,456 | 2,864 | 4,592 |
| Carter | 4,912 | 0 | 4,912 |
| Chester | 5,454 | 2,093 | 3,360 |
| Claiborne | 2,588 | 633 | 1,954 |
| Clay | 4,105 | 0 | 4,105 |
| Cocke | 8,726 | 1,846 | 6,879 |
| Coffee | 11,697 | 3,923 | 7,774 |
| Cumberland | 28,045 | 23,535 | 4,509 |
| Decatur | 13,713 | 12,479 | 1,234 |
| Dickson | 887 | 887 | 0 |
| Dyer | 1,776 | 12 | 1,764 |
| Fayette | 928 | 928 | 0 |
| Fentress | 20,359 | 17,191 | 3,167 |
| Franklin | 9,303 | D | 9,303 |
| Giles | 14,454 | 11,705 | 2,749 |
| Grainger | 3,064 | 1,288 | 1,776 |
| Greene | 5,295 | 2,384 | 2,910 |
| Grundy | 25,665 | 8,767 | 16,897 |
| Hamblen | 642 | D | 642 |
| Hamilton | 34,828 | 17,314 | 17,514 |
| Hancock | 7,075 | 845 | 6,229 |
| Hardeman | 4,306 | 1,669 | 2,637 |
| Hardin | 48,356 | 23,893 | 24,463 |
| Hawkins | 7,037 | 0 | 7,037 |
| Haywood | 348 | 282 | 66 |
| Henderson | 17,937 | 17,898 | 39 |
| Henry | 20,679 | 1,818 | 18,861 |
| Hickman | 50,428 | 8,503 | 41,925 |
| Humphreys | 42,512 | 1,250 | 41,262 |
| Jefferson | 7,529 | 7,529 | 0 |
| Johnson | 5,442 | D | 5,442 |
| Knox | 5,887 | 5,887 | 0 |
| Lawrence | 39,722 | 23,373 | 16,349 |
| Lewis | 6,689 | 2,979 | 3,710 |
| Lincoln | 598 | ,598 | 0 |
| Loudon | 1,479 | 1,479 | 0 |
| McMinn | 34,896 | 28,541 | 6,355 |
| McNairy | 22,175 | 15,154 | 7,020 |
| Madison | 4,984 | 4,762 | 222 |
| Marion | 28,620 | 8,776 | 19,843 |
| Maury | 2,226 | 2,226 | 0 |
| Meigs | 16,426 | 11,839 | 4,586 |
| Monroe | 50,053 | 43,339 | 6,713 |
| Morgan | 14,679 | 9,091 | 5,587 |
| Overton | 107 | D | 107 |
| Polk | 26,257 | 22,410 | 3,847 |
| Rhea | 35,098 | 28,129 | 6,969 |
| Roane | 21,893 | 15,312 | 6,581 |
| Scott | 19,019 | 13,486 | 5,533 |
| Sequatchie | 6,026 | 5,324 | 702 |
| Sevier | 633 | 633 | 0 |
| Shelby | 11 | 11 | 0 |
| Stewart | 9,023 | 4,024 | 4,998 |
| Sullivan | 5,248 | 0 | 5,248 |
| Unicoi | 507 | 0 | 507 |
| Van Buren | 4,348 | 3,399 | 948 |
| Warren | 30,246 | 17,535 | 12,710 |
| Washington | 1,909 | 5 | 1,904 |
| Wayne | 82,561 | 20,152 | 62,409 |
| Weakley | 7,137 | 2,902 | 4,234 |
| Williamson | 2,962 | 2,962 | D |
| Wilson | 29 | 29 | D |
| All Counties | 999,962 | 530,486 | 469,476 |

[1]Counties with no pulpwood production are omitted.

Table A-11--Round pulpwood production in Texas, 1984

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Anderson | 10,349 | 3,004 | 7,345 |
| Angelina | 70,972 | 58,412 | 12,560 |
| Bowie | 52,109 | 32,724 | 19,385 |
| Camp | 29,904 | 19,768 | 10,136 |
| Cass | 193,716 | 124,817 | 68,899 |
| Chambers | 222 | 0 | 222 |
| Cherokee | 75,149 | 57,875 | 17,274 |
| Franklin | 5,431 | 5,063 | 368 |
| Gregg | 5,284 | 3,723 | 1,561 |
| Grimes | 4,826 | 720 | 4,106 |
| Hardin | 166,486 | 104,898 | 61,588 |
| Harris | 1,738 | 57 | 1,681 |
| Harrison | 102,105 | 85,135 | 16,970 |
| Henderson | 6,354 | 5,977 | 377 |
| Hopkins | 11 | 0 | 11 |
| Houston | 41,786 | 21,055 | 20,731 |
| Jasper | 141,932 | 93,984 | 47,948 |
| Jefferson | 2,376 | 1,747 | 629 |
| Leon | 9 | 0 | 9 |
| Liberty | 25,463 | 13,651 | 11,812 |
| Marion | 94,388 | 67,709 | 26,679 |
| Montgomery | 9,285 | 3,005 | 6,280 |
| Morris | 36,958 | 25,618 | 11,340 |
| Nacogdoches | 72,480 | 64,083 | 8,397 |
| Newton | 203,755 | 127,474 | 76,280 |
| Orange | 24,418 | 15,098 | 9,320 |
| Panola | 98,662 | 65,559 | 33,102 |
| Polk | 287,902 | 237,086 | 50,816 |
| Red River | 11,689 | 5,904 | 5,785 |
| Rusk | 42,067 | 27,488 | 14,578 |
| Sabine | 59,926 | 32,928 | 26,997 |
| San Augustine | 50,030 | 19,285 | 30,745 |
| San Jacinto | 88,827 | 77,423 | 11,404 |
| Shelby | 52,486 | 39,908 | 12,577 |
| Smith | 34,216 | 27,029 | 7,187 |
| Titus | 6,125 | 3,952 | 2,173 |
| Trinity | 180,926 | 177,590 | 3,336 |
| Tyler | 71,680 | 35,168 | 36,511 |
| Upshur | 48,031 | 37,280 | 10,751 |
| Walker | 15,791 | 4,931 | 10,860 |
| Wood | 14,497 | 12,204 | 2,293 |
| All Counties | 2,440,373 | 1,739,345 | 701,028 |

[1]Counties with no pulpwood production are omitted.

Table A-12--Round pulpwood production in Virginia, 1984

| County[1] | All species | Softwood | Hardwood |
|---|---|---|---|
| | *Standard cords* | | |
| Accomack | 14,912 | 14,621 | 291 |
| Albemarle | 88,729 | 34,999 | 53,730 |
| Alleghany | 90,039 | 17,267 | 72,772 |
| Amelia | 42,049 | 25,731 | 16,318 |
| Amherst | 31,448 | 17,414 | 14,034 |
| Appomattox | 65,046 | 41,020 | 24,026 |
| Arlington | 545 | 279 | 266 |
| Augusta | 38,334 | 7,766 | 30,568 |
| Bath | 60,310 | 11,179 | 49,131 |
| Bedford | 65,224 | 28,594 | 36,630 |
| Bland | 2 | 2 | 0 |
| Botetourt | 62,094 | 14,108 | 47,986 |
| Brunswick | 100,918 | 67,447 | 33,471 |
| Buchanan | 245 | 0 | 245 |
| Buckingham | 183,213 | 83,086 | 100,127 |
| Campbell | 90,952 | 57,770 | 33,182 |
| Caroline | 48,581 | 40,139 | 8,442 |
| Carroll | 65 | 5 | 60 |
| Charles City | 13,033 | 7,604 | 5,429 |
| Charlotte | 94,897 | 49,418 | 45,479 |
| Chesapeake | 1,346 | 830 | 516 |
| Chesterfield | 8,780 | 7,868 | 912 |
| Clarke | 7 | 0 | 7 |
| Craig | 46,884 | 9,178 | 37,706 |
| Culpeper | 6,751 | 4,872 | 1,879 |
| Cumberland | 62,832 | 30,691 | 32,141 |
| Dickenson | 116 | 0 | 116 |
| Dinwiddie | 33,959 | 20,118 | 13,841 |
| Essex | 21,862 | 10,734 | 11,128 |
| Fairfax | 2,831 | 993 | 1,838 |
| Fauquier | 18,971 | 11,002 | 7,969 |
| Floyd | 384 | 16 | 368 |
| Fluvanna | 26,664 | 21,212 | 5,452 |
| Franklin | 56,911 | 21,979 | 34,932 |
| Frederick | 5,691 | 3,532 | 2,159 |
| Giles | 83 | 83 | 0 |
| Gloucester | 15,647 | 13,717 | 1,930 |
| Goochland | 25,774 | 21,231 | 4,543 |
| Greene | 776 | 518 | 258 |
| Greensville | 37,684 | 11,490 | 26,194 |
| Halifax | 57,898 | 20,461 | 37,437 |
| Hanover | 20,417 | 18,319 | 2,098 |
| Henrico | 5,993 | 3,962 | 2,031 |
| Henry | 20,731 | 11,006 | 9,725 |
| Highland | 8,036 | 2,248 | 5,788 |
| Isle of Wight | 20,256 | 7,043 | 13,213 |
| James City | 7,587 | 5,464 | 2,123 |
| King and Queen | 35,421 | 25,898 | 9,523 |
| King George | 3,796 | 3,779 | 17 |
| King William | 25,612 | 14,147 | 11,455 |
| Lancaster | 7,503 | 6,401 | 1,102 |
| Lee | 16,578 | 0 | 16,578 |
| Loudoun | 375 | 360 | 15 |
| Louisa | 32,463 | 19,307 | 13,156 |
| Lunenburg | 28,860 | 19,134 | 9,726 |
| Madison | 4,742 | 2,349 | 2,393 |
| Mathews | 8,038 | 3,925 | 4,113 |
| Mecklenburg | 52,578 | 35,680 | 16,898 |
| Middlesex | 10,314 | 7,685 | 2,629 |
| Montgomery | 35 | 15 | 20 |
| Nelson | 63,963 | 36,992 | 26,971 |
| New Kent | 31,390 | 17,644 | 13,746 |
| Newport News | 1,476 | 371 | 1,105 |
| Northampton | 9,491 | 4,314 | 5,177 |
| Northumberland | 2,360 | 1,946 | 414 |
| Nottoway | 37,778 | 18,583 | 19,195 |
| Orange | 12,625 | 6,597 | 6,028 |
| Page | 26 | 0 | 26 |
| Patrick | 2,661 | 1,544 | 1,117 |
| Pittsylvania | 118,352 | 73,788 | 44,564 |
| Powhatan | 22,308 | 17,144 | 5,164 |
| Prince Edward | 90,276 | 47,397 | 42,879 |
| Prince George | 23,325 | 13,079 | 10,246 |
| Prince William | 10,652 | 7,835 | 2,817 |
| Pulaski | 4,018 | 1,303 | 2,715 |
| Rappahannock | 4 | 4 | 0 |
| Richmond | 12,470 | 10,569 | 1,901 |
| Roanoke | 2,942 | 297 | 2,645 |
| Rockbridge | 44,362 | 19,806 | 24,556 |
| Rockingham | 393 | 196 | 197 |
| Russell | 1,908 | 0 | 1,908 |
| Scott | 20,278 | 0 | 20,278 |
| Shenandoah | 3,801 | 1,381 | 2,420 |
| Smyth | 5,594 | 0 | 5,594 |
| Southampton | 55,774 | 21,808 | 33,966 |
| Spotsylvania | 20,892 | 17,486 | 3,406 |
| Stafford | 6,254 | 4,517 | 1,737 |
| Suffolk | 11,279 | 3,831 | 7,448 |
| Surry | 17,830 | 11,296 | 6,534 |
| Sussex | 56,181 | 30,637 | 25,544 |
| Virginia Beach | 239 | 239 | 0 |
| Warren | 45 | 45 | 0 |
| Washington | 4,515 | 0 | 4,515 |
| Westmoreland | 6,229 | 5,027 | 1,202 |
| Wise | 14,285 | 0 | 14,285 |
| York | 2,279 | 1,871 | 408 |
| All Counties | 2,550,077 | 1,293,253 | 1,256,824 |

[1]Counties with no pulpwood production are omitted.

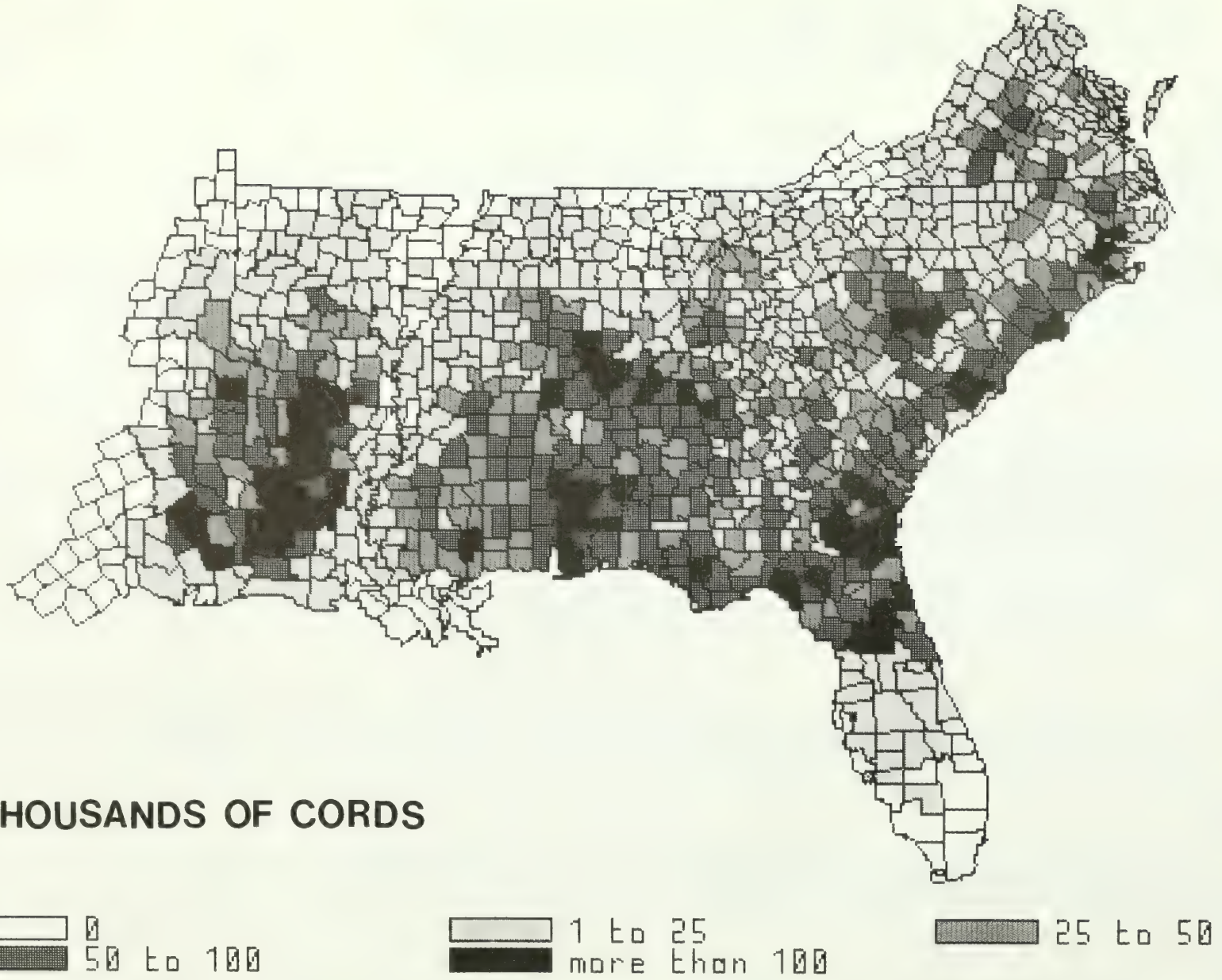


Figure A-1.--Softwood roundwood production by county, 1984.

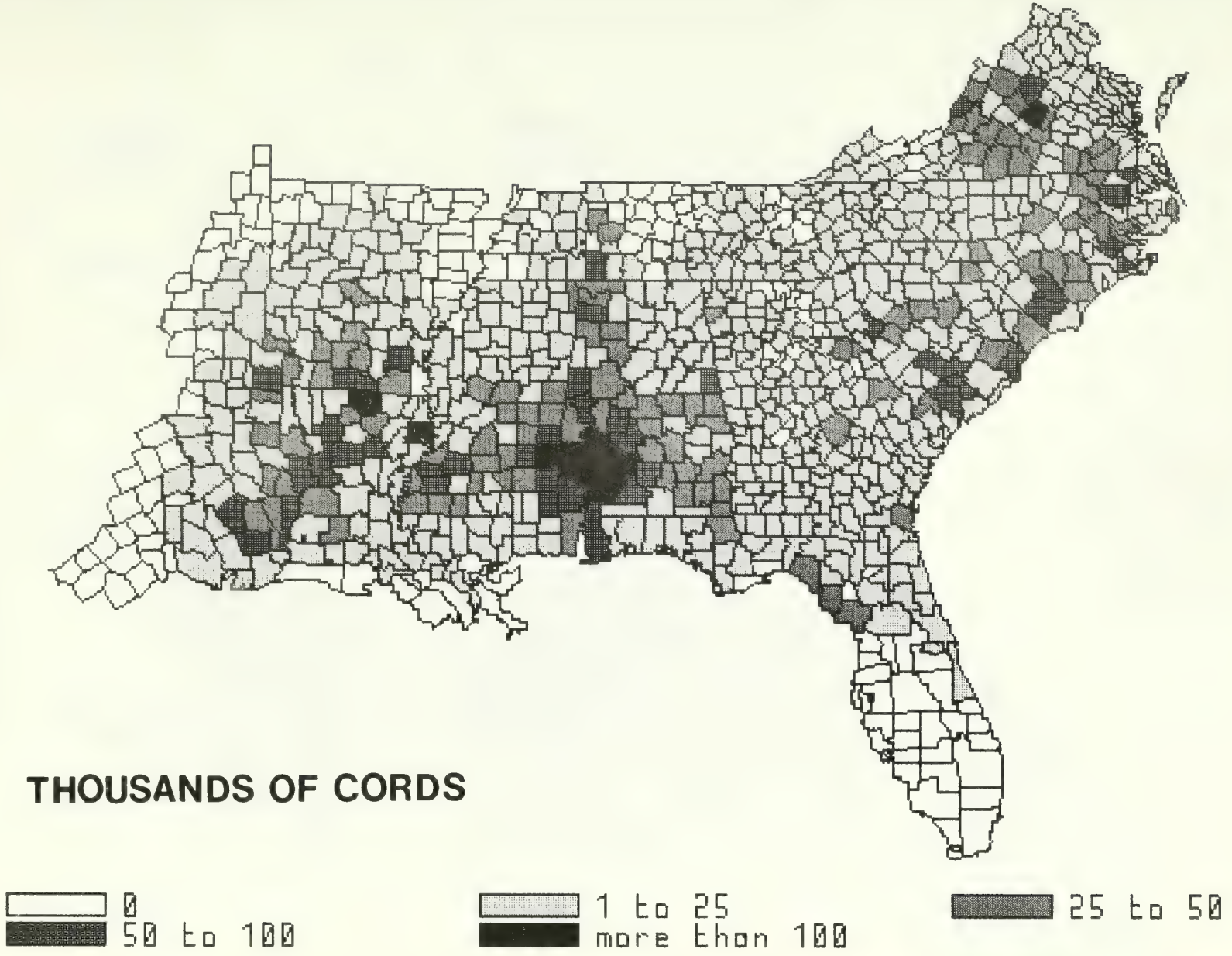


Figure A-2.--Hardwood roundwood production by county, 1984.

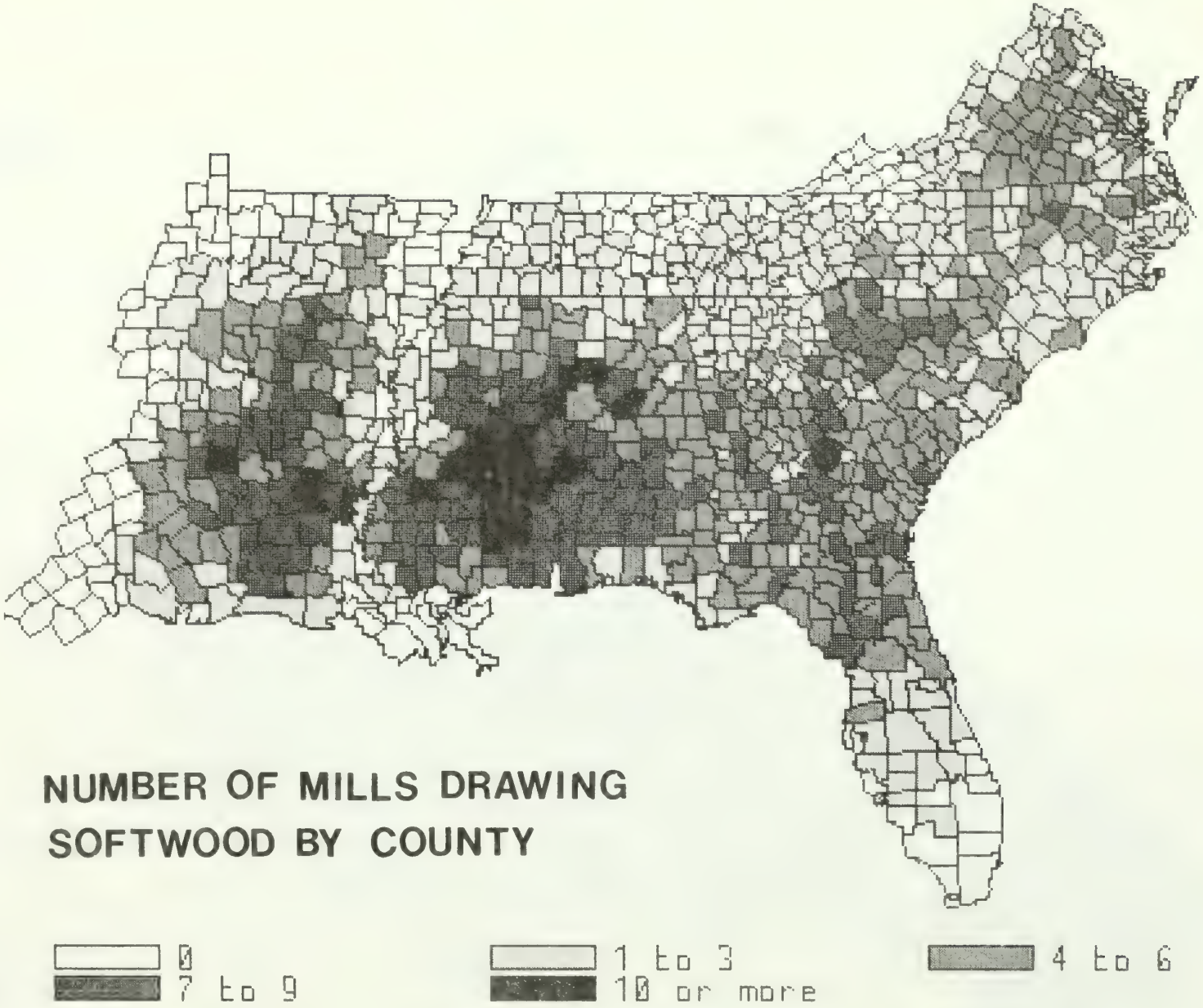


Figure A-3.--Competition among mills for softwood roundwood, 1984.

*U.S. GOVERNMENT PRINTING OFFICE:1986-659-080/40044

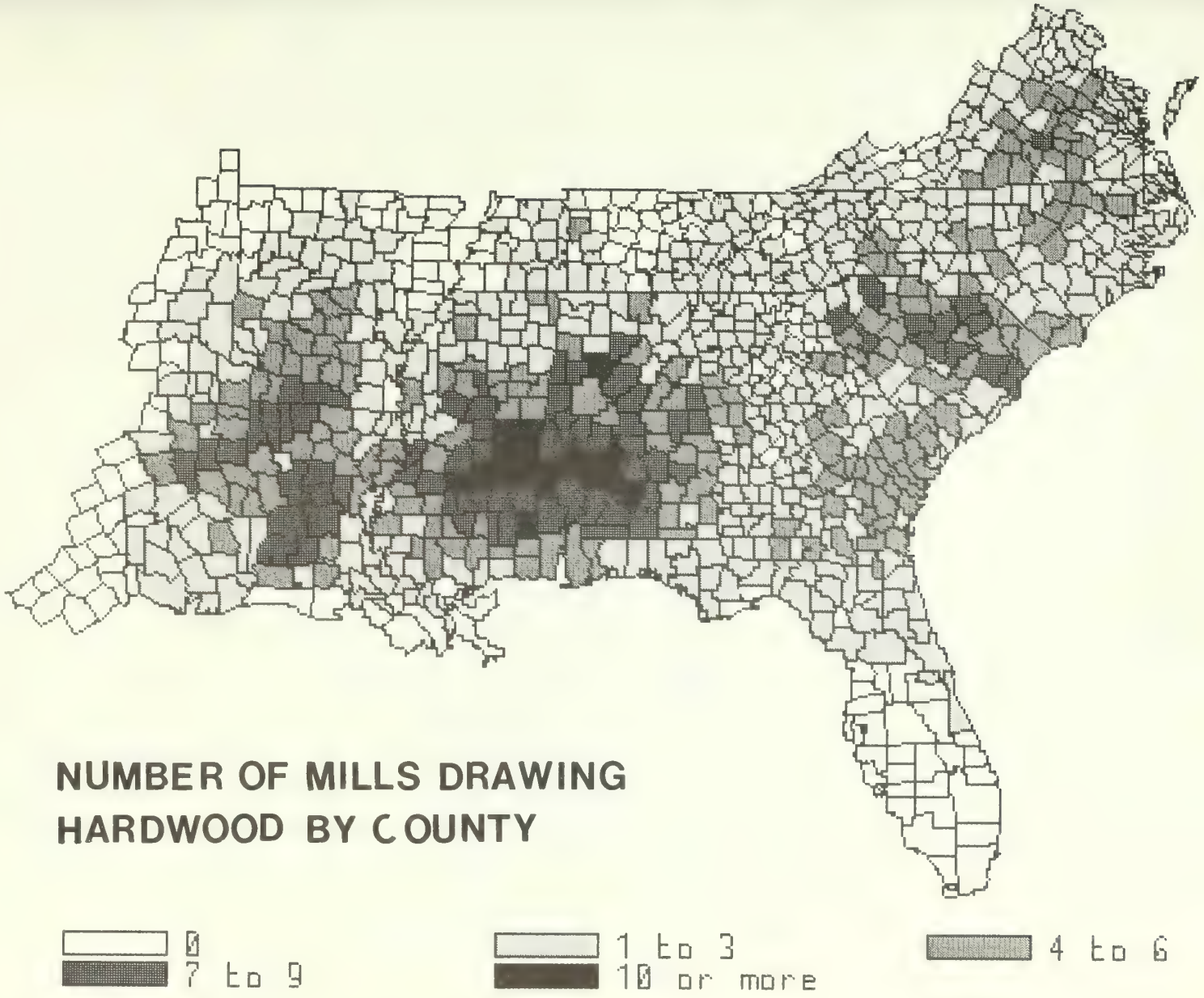


Figure A-4.--Competition among mills for hardwood roundwood, 1984.

May, Dennis M. Southern Pulpwood Production, 1984.
Resour. Bull. SO-111. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station, 1986. 25 p.

In 1984, Southern pulpwood production increased 4 percent to 58.7 million cords. Roundwood production increased 3 percent to 38.7 million cords, and wood residue production increased 6 percent to 20.0 million cords. Since 1974, softwood roundwood production has been relatively stable, while hardwood roundwood and wood residue production have been increasing. Pulping capacity of the 108 pulpmills operating in 1984 totaled 120,069 tons per day.

Additional keywords: pulpwood, roundwood, residues, pulp mills.

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# Incidence and Impact of Damage to Alabama's Timber, 1983

Paul A. Mistretta and Carl V. Bylin

## SUMMARY

The Southern Forest Experiment Station in Starkville, MS, periodically inventories and evaluates forest resources in Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Puerto Rico, Tennessee, and Texas. Survey data were collected in 1981, 1982, and 1983 by the Forest Inventory and Analysis work unit of the Southern Forest Experiment Station as part of the fifth inventory of Alabama's forests. Considerably more information was gathered for this inventory than in previous data collections, making possible the publication of this specialized report summarizing information on agents that damage timber in Alabama's forests.

# Incidence and Impact of Damage to Alabama's Timber, 1983

Paul A. Mistretta and Carl V. Bylin

## INTRODUCTION

During the periodic inventory of Alabama's forests conducted from 1981 to 1983 by the Southern Forest Experiment Station, Starkville, MS, damage to live trees on sample plots was noted, and, where possible, a cause or damaging agent was specified. Since a plot is visited only once during the survey, and that visit can be at any time of the year, only agents that produce durable symptoms or signs of damage were reported.

Since the data reported here were gathered by people trained and experienced in forest inventory, not entomology or pathology, qualified people from Region 8, State and Private Forestry, Forest Pest Management, trained the field crews to use a damage-identification handbook (Anderson et al. 1980) before going out on the field survey. Specimen kits and forms were provided to crew members for submission of damage samples they might be unable to identify in the field. During the survey, field checks were made to ensure the accuracy and consistency of the recording and collection of the data.

Agents selected to be included in the survey were required to be (1) easily identifiable, (2) present year-round, and (3) present on trees at least 1 inch in diameter at breast height (d.b.h.). Therefore, small trees with problems such as brown spot and trees of all sizes with damage such as defoliation (which is not apparent in winter) are not included in this report.

There are several reasons why this report does not completely assess the incidence and impact of all damage observed in Alabama's forests. First, damage is caused by a wide variety of agents; some are easily recognized, others are more difficult to identify. The data presented here for damaging agents that are easily identified and persistent, such as stem and branch rust, are reliable. The data for damaging agents that are more difficult to recognize, such as root rot, are underestimated.

Second, certain types of damage can only be observed during part of the year; these have not been included in this survey in a dedicated category. For example, defoliation caused by insects is only evident at the time of year during which trees normally have leaves, and insects are active. Since survey crews work year-round, defoliation data could not be consistently collected and is recorded only as "other insect" when observed during the summer.

Third, some damaging agents cause trees to die rapidly; these trees were recorded in a mortality (not a damage) category. For instance, trees attacked by bark beetles in summer tend to die rapidly. If the survey crew found a tree with evidence of bark beetle activity, there was a good chance that it was already dead and was tallied as such. Thus, many bark beetle damaged trees would not be recorded in the "Bark Beetle" damage category.

And finally, only a single "most damaging" agent is reported per tree. Thus, there is no information presented concerning complexes such as a disease/insect/environment/etc. interaction.

Data presented in this Bulletin were compiled for this report in a separate computer run. Similarity will be seen between acres of forest types, timber removals, and mortality by species when compared to numbers presented in "Forest Statistics for Alabama Counties in 1982" (USDA For. Serv. 1985). Differences in accumulation, definition changes, and rounding will account for the differences in numbers presented.

In spite of these problems the survey gives a good picture of the relative incidence of the pre-selected, easily recognized damage types (or agents) that persist year round.

## SAMPLING PROCEDURE

The sampling procedure used for this inventory was designed to provide reliable statistics on a statewide basis or for large groups of counties. It also accurately summarizes species having a relatively large total volume in the State. However, errors associated with relatively minor species, like cottonwood or pondcypress, exceed those for such major species as loblolly pine.

Paul Mistretta is a Supervisory Plant Pathologist with Southern Region, Forest Pest Management, USDA Forest Service, Pineville, LA. Carl V. Bylin is a Forester with Southern Forest Experiment Station, USDA Forest Service, Starkville, MS.

The data on forest acreage and timber volume in this report were obtained by a sampling method involving a forest-nonforest classification on aerial photographs linked to ground measurements of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. In Alabama, 151,671 photographic classifications were made and 5,723 ground locations were visited. The initial estimates of forest area obtained from aerial photographs were adjusted on the basis of the ground check.

A cluster of 5 variable-radius plots was installed at each ground sample location. Each sample tree on the variable-radius plots represented 7.50 square feet of basal area per acre. Trees less than 5.0 inches in diameter were tallied on fixed-radius plots around the plot centers. Trees on a subsample of plots were measured in detail to obtain data for calculating timber volumes.

Plots established during the fourth survey of Alabama (Murphy 1973) were remeasured during this (the fifth) survey to determine the elements of change, and these remeasured plots are the basis for estimating growth, mortality, removals, and changes in land use.

## COMPUTATION METHODS

Limits on size classes of trees were: saplings, 1.0 to 4.9 inches d.b.h.; softwood poles, 5.0 to 8.9 inches d.b.h.; hardwood poles, 5.0 to 10.9 inches d.b.h.; softwood sawtimber ≥9.0 inches d.b.h.; and hardwood sawtimber ≥11.0 inches d.b.h. Volume equations based on measurements of standing trees in Alabama were used to compute merchantable and total cubic volume.

Percentage of loss in an individual tree was estimated in the field. Volume loss by pest/tree combination and total volume loss attributable to all agents damaging a species were subsequently computed. Data on percent incidence of damage do not imply total economic loss; only a part of the volume in cull would fail to qualify for some commercial use, such as firewood. Cull includes loss due to crooks, limbs, decay, missing wood, sweep, large forks, and sections of the bole too rough to be used as pulpwood or sawtimber. The volume loss was determined by totaling the volume of cull by species.

Mortality could not be attributed to specific damaging agents because it was often impossible to determine the cause of death. In many cases, a tree which had been tallied in the fourth survey 10 years earlier (Murphy 1973) was simply missing. It was possible, however, to determine volume loss due to mortality for each tree species on each plot. Accumulating total volume per dead tree by tree species resulted in the total volume loss for poles and sawtimber by tree species. Economic impact was determined by multiplying the total wood fiber and quality loss for each tree species by the stumpage value per unit. These dollar estimates were taken from an average of a sample of timber sales in Alabama in 1982.

## INCIDENCE OF DAMAGING AGENTS

Alabama has 21,658,700 acres of commercial forest, and most of the acreage is in the oak-hickory, loblolly pine, shortleaf pine, slash pine, oak-pine, and mixed oak forest types. Table 1 shows the acreage in the various size classes and forest types. The remaining tables in this report show how much of the timber resource was damaged and the agents responsible for the damage. The term "damage" refers to any injury the tree has suffered. A damaged tree is still living.

Tables 2 and 3 show percentage of trees damaged, by size class and tree species. Overall, hardwoods had more damage than softwoods. Red oaks, gums, and white oaks were severely affected. More hardwood sawtimber was damaged than saplings or poletimber, but more softwood saplings were damaged than poletimber or sawtimber. Loblolly, shortleaf, and slash pine are the most abundant softwood species in Alabama. For all three species 25 percent or more of both poletimber- and sawtimber-sized trees were damaged, with damage to saplings being greater than the damage observed in the older age classes.

The percentage of saplings damaged was generally higher for hardwoods (49 percent average) than softwoods (39 percent average). In most hardwood species, 35 to 70 percent of the saplings were damaged (table 3). The most frequently damaged saplings were black walnut, with hard maples, blackgum, and ash all having more than 70 percent of their seedlings damaged. Hardwood poletimber was damaged less often than saplings or sawtimber. The most frequently damaged hardwood sawtimber trees were hard and soft maples, black walnut, and basswood. More than 70 percent of the sawtimber trees in these species were damaged.

Table 4 shows the incidence of damage to softwood. The most common causes of softwood damage were suppression and stagnation in saplings, weather, logging, and form. Fusiform rust, caused by *Cronartium quercuum* (Berk.) Miy. & Shirai f. sp. *fusiforme*, was the most common disease caused damage. Loblolly, slash, and pond pines, in all size classes, were affected by this disease. In these tree species, fusiform rust was the most damaging agent and was associated with high volume losses. Fusiform rust was recorded only if the gall was on or within 12 inches of the main stem. Economically, galls farther than 12 inches out have minimal impact on the tree. If galls farther out on limbs had been recorded, the reported occurrence of fusiform rust would have been much higher.

Bark beetles are considered to be the most serious insect pests of pines in the Southeast; however, the main reason for this discrepancy is that this survey only reported damage to living trees; bark beetles usually kill trees, and the dead trees were recorded under the heading "mortality".

The reported incidence of damage due to insects on both hardwoods and softwoods was very low with the exception of terminal, shoot, and stem borers on sapling hardwoods. Insect damage, however, was significantly underestimated due to the difficulty in diagnosing and evaluating many types of insect-caused damage.

Table 5 shows the incidence of damage to hardwoods. The most common problems associated with damage observed in hardwoods were basal defect, dieback, weather caused problems, suppression and stagnation, logging, and tree form. Form damage had the highest incidence in mature trees. Saplings had a high incidence of damage resulting from suppression and stagnation.

## MORTALITY, CULL, AND ECONOMIC IMPACT

Annual mortality of softwood poletimber is shown in table 6. Softwood poletimber mortality was more than 32 percent of the annual volume of softwood poletimber removals and hardwood poletimber mortality was 36 percent of the annual volume of hardwood poletimber removals. Softwood sawtimber mortality was approximately 13 percent of the annual softwood sawtimber removals while hardwood sawtimber mortality was almost 34 percent of the annual hardwood sawtimber removals. The mortality figures shown in table 6 are the total for the resource and do not reflect any discounting for dead trees that represented no economic loss. Table 6 also shows the estimated volumes of cull for the major species groups in Alabama. Annual removal figures are given to place the volume losses in perspective.

The volume lost due to cull was much greater in hardwoods than softwoods; but, considering their relative population sizes, the cull of softwood sawtimber is about 3 times as great as that for hardwood sawtimber! Proportioned by population, annual accumulated cull of hardwood poletimber was about 133 percent of that of softwoods, while the values for mortality in poles show much greater damage in both softwood categories.

The economic impact of damaging agents is greatest in softwood sawtimber, which showed an annual loss of about $74 million (table 7). The annual wood volume loss for hardwood sawtimber, although it is more than 75 percent as great as for softwood, is valued at about only $18.5 million because hardwood stumpage value is considerably less than that of softwood. In poletimber, the $8 million softwood loss was three and a half times that of hardwoods despite the fact that hardwood volume loss was 120 percent of softwood loss.

Overall, 79.5 percent of all economic impact occurs in softwoods, and about 89.7 percent of the total economic impact was in sawtimber-size trees.

## DAMAGING AGENTS, GROWTH DEFECTS, AND SYMPTOMS

The definitions presented under the subheadings Diseases, Growth Defects, Natural Phenomena, Animals and Birds, Insects, and Human Activities are those used in the field manual prepared by Anderson, et al. (1980). They describe the problems reported by the field crews.

### Diseases

*Fusiform Rust.*—Common host species: Slash, loblolly, and shortleaf pines. Symptoms and signs: Spindle-shaped galls formed on the stem or on branches within 12 inches (30.5 cm) of the bole. Older galls appear as cankers with sunken, rotten centers encircled by a callus ridge. Witches' brooms are common at galls. Bright orange spores are produced on the galls in the spring.

*Hardwood Cankers.*—Common host species: All hardwoods. Symptoms and signs: Dead, sunken area formed on the stem, frequently with annual callus ridges around the dead area.

*Littleleaf Disease.*—Common host species: Shortleaf and loblolly pines, but shortleaf is more susceptible. Symptoms and signs: Affected trees occur in groups. Short, yellow needles; reduced shoot growth; and large crops of under sized cones are typical symptoms. Littleleaf disease usually occurs in trees growing on heavy clay soils with poor internal drainage.

*Pitch Canker.*—Common host species: Most southern pines, but primarily slash, loblolly, and shortleaf. Symptoms and signs: Flagging at branch ends, pitch flow from affected area, slight swelling on affected stems and twigs, crooks in main stem, and wilting of current candles are all symptoms of this disease.

*Root Rots.*—Common host species: All tree species. Symptoms and signs: Diseased trees, often with thin, tufted crowns, frequently occur in groups that usually contain dead or windthrown trees. Conks (fruiting bodies) of various fungi may be present on or near the bases of diseased trees. Root rots are more frequent in trees of reduced vigor, thinned stands, and in trees with butt or root injury. Trees with root rots are often subsequently attacked by bark beetles.

*Other Diseases.*—Common host species: All tree species. Symptoms and signs: All damage caused by

diseases not identified in separate categories (e.g., red heart of pine, brown spot, and leaf diseases). Trees showing degrade caused by diseases are included in this category.

### Growth Defects

*Branch Stubs.*—Common host species: All tree species. Symptoms and signs: Branch holes or stubs greater than 4.0 inches in diameter on stems of trees 5.0 inches d.b.h. and larger or greater than 1.0 inch in diameter on stems of trees 1.0 to 4.9 inches d.b.h.

*Basal Defect.*—Common host species: All tree species. Symptoms and signs: Butt swelling, curls, V-shaped stump sprouts, frost seams, and low stubs below 4.5 feet are symptoms of basal defect.

*Dieback.*—Common host species: All hardwoods. Symptoms and signs: Tips of the branches die back. Initially, only a few branches are affected, but in advanced stages, entire branches die with the possibility of tree mortality. Dieback is frequently associated with stress caused by an unfavorable environment.

*Suppression and Stagnation.*—Common host species: All tree species. Symptoms and signs: Suppressed and stagnated trees are characterized by poor form and small crowns. Suppressed trees are overtopped and receive indirect sunlight. Stagnated trees have thin foliage despite receiving some direct sunlight. Stagnation is usually associated with poor growing sites or overstocking.

*Form (damaging).*—Common host species: All tree species. Symptoms and signs: All trees 5.0 inches d.b.h. and larger that are deformed due to unknown causes.

### Natural Phenomena

*Fire.*—Common host species: All tree species. Symptoms and signs: Fire scars are usually at the base of the stem and are widespread in the stand. The scars are usually on the uphill side of the tree, and signs of charring are generally present on the stem.

*Flooding.*—Common host species: All tree species. Symptoms and signs: Yellowing and curling downward of leaves, premature leaf fall, branch and top dieback, tree mortality, and high water and silt marks on tree boles are the most common effects of flooding.

*Lightning.*—Common host species: All tree species. Symptoms and signs: Lightning causes bark stripping or cracking, with damage running from the strike point to the ground in a straight or spiral line. Often, the foliage will fade due to root damage or top breakage. Bark beetles often invade struck trees.

*Weather.*—Common host species: All tree species. Symptoms and signs: Windthrow, ice, frost cracks, broken tops, broken branches, marginal leaf burn, and winter burn are the common symptoms.

### Animals and Birds

*Beaver.*—Common host species: All tree species. Symptoms and signs: Beavers leave toothmarks and remove the bark from the bole of the tree. Trees are often flooded by water impoundment, which can lead to flooding damage and death.

*Other Animals.*—Common host species: All tree species. Symptoms and signs: Branches clipped off or broken, bark removed, holes in the stem, and tears and toothmarks in the wood are all common signs of animal activity.

*Sapsucker.*—Common host species: All tree species. Symptoms and signs: Horizontal rows of small holes that may encircle the tree's bole are seen. Bark below the holes is usually streaked or stained by oozing sap.

### Insects

*Bark Beetles.*—Common host species: All pines. Symptoms and signs: Symptoms include pitch tubes, bark beetle galleries on the inner bark surface and the surface of the sapwood, exit holes, and loose bark. Streaks caused by blue stain fungi are often evident in the sapwood. Foliage of infested trees gradually yellows and then turns red.

*Hardwood Borers.*—Common host species: All hardwoods. Symptoms and signs: The initial symptom is a dark sap spot on the bark surface, often mixed with frass. Eventually, coarse boring particles appear in bark cracks and crevices beneath the point of attack. Old damage appears as knobby overgrowths or scars on the bark surface.

*Terminal Shoot and Stem Borers.*—Common host species: All tree species. Symptoms and signs: Fresh attacks show boring dust and frass at the entrance holes, which are most often located at the base of leaf petioles and buds. Resin globs may be present at points of attack. Dieback results from larval tunneling within terminal shoots and branches. Foliage on the shoots turns yellow, red, and finally brown.

*Other Insects.*—Common host species: All tree species. Symptoms and signs: All damage caused by insects not identified in separate categories. Includes hardwood defoliators (e.g., orangestriped oakworm and fall cankerworm), pine defoliators (e.g., redheaded pine sawfly), and pine weevils.

### Human Activities

*People.*—Common host species: All tree species. Symptoms and signs: Initials in bark, nails in tree, burns from lanterns, stripped bark, wire around stem, and ax marks are signs of damage by people.

*Logging and Related.*—Common host species: All tree species. Symptoms and signs: Logging scars on the stem will form callus ridges within 1 to 2 years after wounding. Trees with logging damage are scat-

tered in stands and show no charring. Broken limbs and scars on the stem near the crown will occur from the felling of other trees. Skid trails, stumps, or other evidence of logging will be present.

## FOREST SURVEY TERMS

The following terms, used by the Forest Inventory Analysis group are presented to clarify some of the constraints placed on the data collected, and on subsequent data analysis.

*Acceptable Trees.*—Growing-stock trees of commercial species that meet specified standards of size and quality, but do not qualify as desirable trees.

*Annual Accumulated Cull.*—Total cull divided by the intrasurvey period.

*Basal Area.*—The area in square feet of the cross section at breast height of a single tree or of all the trees in a stand, usually expressed in square feet per acre.

*Commercial Forest Land.*—Forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization.

*Cull Volume.*—Total volume loss due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of the bole too rough to be used as sawtimber or pulp.

*Desirable Trees.*—Growing- stock trees of commercial species having no serious quality defects that limit present or prospective use for timber products, of relatively high vigor, and containing no pathogens that may result in death or serious deterioration before rotation age.

*D.b.h.* (Diameter at breast height).—Tree diameter in inches, outside bark, measured at 4.5 feet above ground.

*Diameter Class.*—A classification of trees based on diameter outside bark, at d.b.h. Two-inch diameter classes are commonly used in forest surveys, with the even numbered inch as the approximate midpoint for a class. For example, the 6-inch class includes trees 5.0 through 6.9 inches d.b.h.

*Growing-Stock Trees.*—Live trees of commercial species excluding rough and rotten trees.

*Hardwoods.*—Dicotyledonous trees, usually broadleaved and deciduous.

*Incidence.*—Percentage of susceptible trees affected by a damaging agent.

*Intrasurvey Period.*—The number of years between the current survey and the past survey.

*Mortality.*—Number or sound-wood volume of live trees that died from natural causes during the intrasurvey period.

*Poletimber Trees.*—Live trees of commercial species at least 5.0 inches d.b.h. but smaller than sawtimber size, of good form and vigor.

*Rough and Rotten Trees.*—Live trees that are unmerchantable for saw logs currently or potentially because of defect, rot, or species.

*Saplings.*—Live trees 1.0 to 4.9 inches d.b.h. and of good form and vigor.

*Saw Log.*—A log meeting minimum standards of diameter, length, and defect, including logs at least 8 feet long, sound and straight, with a minimum diameter inside bark of 6.0 inches for softwoods and 8.0 inches for hardwoods.

*Sawtimber Trees.*—Live trees of commercial species containing at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, with at least one-third of the gross board-foot volume between the 1-foot stump and minimum saw log top being sound. Softwoods must be at least 9.0 inches d.b.h. and hardwoods at least 11.0 inches d.b.h.

*Sawtimber Volume.*—Net volume of the saw log portion of live sawtimber in board feet of the International rule, 1/4-inch kerf.

*Softwoods.*—Coniferous trees, usually evergreen, having needles or scalelike leaves.

*Species Groups.*—Sets of tree species pooled together for standard reporting.

- Hard maples: Florida, black, and sugar maples
- Soft maples: Boxelder, red, and silver maples
- Select red oaks: Cherrybark, northern red, and shumard oaks
- Other red oaks: Scarlet, southern red, laurel, water, willow, black, and others not in select red oaks
- Select white oaks: White, swamp white, bur, and swamp chestnut oaks
- Other white oaks: Overcup, chestnut, post, live, and others not in select white oaks
- Other eastern hardwoods: Buckeye, birch, hackberry, dogwood, persimmon, honeylocust, silverbell, holly, butternut, cucumbertree, mulberry, scrub oaks, willow, and other commercial species.

*Stand-size Class.*—A classification of forest land based on the size class of growing-stock trees on the area.

*Sawtimber stands:* Stands at least 16.7 percent stocked with growing-stock trees, with half or more of the total stocking in sawtimber or poletimber trees and sawtimber stocking at least equal to poletimber stocking.

*Poletimber stands:* Stands at least 16.7 percent stocked with growing-stock trees, with half or more of this stocking in poletimber and sawtimber trees, and poletimber stocking exceeding that of sawtimber.

*Sapling-seedling stands:* Stands at least 16.7 percent stocked with growing-stock trees, of which more than half of the stocking is saplings and seedlings.

*Susceptible Trees.*—All living trees. Includes desirable and acceptable trees, as well as rough and rotten trees.

*Timber Removals.*—The net volume of growing-stock trees removed from the inventory by harvesting or cultural operations such as timber-stand improvement, land clearing, or changes in land use.

*TSI.*—Timber stand improvement.

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Table 1.—*Area of commercial forest land in Alabama, by stand-size class and forest type*

| Forest classification | Thousands of acres[1] |
|---|---|
| Stand-size class: | |
| Sawtimber | 7,617.7 |
| Poletimber | 6,948.8 |
| Sapling-seedling | 6,723.3 |
| Understocked areas | 369.0 |
| All stand sizes | 21,658.7 |
| Forest type: | |
| White oak-red oak-hickory | 6,215.0 |
| Loblolly pine | 4,412.9 |
| Loblolly pine-hardwood | 2,466.7 |
| Sweetgum-nuttal oak-willow oak | 1,052.1 |
| Shortleaf pine | 899.4 |
| Shortleaf pine-oak | 864.0 |
| Slash pine | 756.5 |
| Longleaf pine | 726.2 |
| Sweetbay-swamp tupelo-red maple | 588.7 |
| Virginia pine | 464.9 |
| Sugarberry-American elm-green ash | 443.7 |
| Sweetgum-yellow poplar | 425.0 |
| Longleaf pine-scrub oak | 411.6 |
| Slash pine-hardwood | 338.9 |
| Mixed hardwoods | 328.6 |
| Virginia pine-southern red oak | 289.5 |
| Cypress-tupelo | 166.5 |
| Other oak-pine | 130.9 |
| Yellow poplar-white oak-N. red oak | 99.2 |
| Chestnut oak | 79.6 |
| Overcup oak-water hickory | 63.8 |
| Eastern redcedar-hardwood | 61.4 |
| Swamp chestnut oak-cherrybark oak | 52.8 |
| Post oak-black oak-bear oak | 51.1 |
| Southern scrub oak | 42.1 |
| Eastern redcedar | 41.5 |
| Sycamore-pecan-American elm | 39.1 |
| White oak | 35.2 |
| Nonstocked | 36.2 |
| Spruce pine | 29.1 |
| Willow | 29.0 |
| Atlantic white-cedar | 6.0 |
| Cottonwood | 6.0 |
| Sand pine | 6.0 |
| All types | 21,658.7 |

[1]Totals may not add due to rounding.

Table 2.—*Percentage of susceptible softwood trees damaged and volume of cull by species and tree size in Alabama*

| Host | Total population | Trees damaged | | | Volume of cull[1] | |
|---|---|---|---|---|---|---|
| | | Sapling | Poletimber | Sawtimber | Poletimber | Sawtimber |
| | *Thousands* | - - - - - - - - - *Percent* - - - - - - - - - | | | *Mft³* | *Mfbm* |
| Loblolly pine | 1,950,192.1 | 38.5 | 33.0 | 36.2 | 58,997.4 | 349,152.3 |
| Shortleaf pine | 709,240.3 | 46.9 | 25.1 | 25.7 | 6,539.4 | 68,246.5 |
| Slash pine | 339,463.5 | 28.0 | 25.9 | 30.3 | 8,907.7 | 24,907.7 |
| Virginia pine | 289,993.8 | 45.2 | 30.3 | 44.4 | 9,024.6 | 30,683.7 |
| Longleaf pine | 230,286.3 | 29.0 | 26.5 | 28.6 | 2,378.1 | 34,055.5 |
| Eastern redcedar | 126,445.2 | 27.2 | 52.5 | 47.6 | 2,160.7 | 0.0 |
| Spruce pine | 30,649.4 | 32.3 | 39.5 | 45.7 | 458.4 | 15,273.1 |
| Baldcypress | 15,676.9 | 36.2 | 39.5 | 21.8 | 819.2 | 5,905.7 |
| Eastern hemlock | 10,502.2 | 28.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Atlantic white cedar | 1,441.0 | 0.0 | 0.0 | 56.7 | 0.0 | 524.0 |
| Southern Redcedar | 356.7 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| Pondcypress | 54.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total[2] | 3,704,301.6 | 38.6 | 30.5 | 33.6 | 89,285.5 | 528,748.5 |

[1]Cull due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of bole that are too rough to be utilized as pulpwood or as sawtimber.

[2]Totals may not add due to rounding.

Table 3.—*Percentage of susceptible hardwood trees damaged and volume of cull by species and tree size in Alabama*

| Host | Total population | Trees damaged | | | Volume of cull[1] | |
|---|---|---|---|---|---|---|
| | | Sapling | Poletimber | Sawtimber | Poletimber | Sawtimber |
| | *Thousands* | - - - - - - - - - *Percent* - - - - - - - - - | | | *Mft³* | *Mfbm* |
| Other eastern hardwoods | 3,783,829.5 | 35.4 | 46.3 | 66.3 | 90,156.5 | 50,808.9 |
| Sweetgum | 1,918,040.6 | 54.9 | 44.9 | 56.8 | 49,933.1 | 74,972.3 |
| Other red oaks | 1,763,611.9 | 40.6 | 37.2 | 53.4 | 60,024.7 | 110,738.0 |
| Hickories | 902,192.0 | 66.8 | 47.6 | 58.6 | 35,814.4 | 52,170.3 |
| Soft maple | 780,725.6 | 69.3 | 75.7 | 85.3 | 27,882.5 | 7,777.7 |
| Blackgum/tupelo | 775,284.3 | 73.6 | 60.2 | 56.5 | 37,175.3 | 48,724.3 |
| Other white oaks | 550,186.2 | 62.1 | 50.3 | 61.8 | 37,800.4 | 52,921.3 |
| Select white oaks[2] | 427,945.7 | 54.0 | 37.7 | 46.5 | 17,632.7 | 44,556.8 |
| Yellow-poplar | 218,981.8 | 36.1 | 41.8 | 49.4 | 21,832.9 | 43,520.1 |
| Ash | 213,626.8 | 72.9 | 63.3 | 66.2 | 8,046.1 | 23,439.1 |
| Hard maple | 92,095.0 | 73.1 | 55.4 | 95.8 | 1,258.3 | 981.5 |
| Noncommercial | 86,663.5 | 6.5 | 5.4 | 0.0 | 1,571.0 | 0.0 |
| Select red oaks[3] | 78,477.0 | 61.3 | 42.6 | 51.8 | 4,625.1 | 23,286.9 |
| Beech | 42,798.5 | 54.2 | 59.3 | 65.7 | 2,107.2 | 2,302.8 |
| Basswood | 26,489.0 | 57.7 | 66.8 | 71.9 | 1,174.2 | 3,762.9 |
| Black walnut | 6,739.7 | 89.3 | 55.1 | 79.4 | 0.0 | 1,274.5 |
| Cottonwood | 2,746.6 | 33.3 | 44.1 | 83.1 | 425.7 | 497.7 |
| Totals[4] | 11,670,433.8 | 49.3 | 46.7 | 57.3 | 397,460.3 | 541,735.1 |

[1]Damage due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of bole that are too rough to be utilized as pulpwood or as sawtimber.

[2]White, swamp white, swamp chestnut, and bur oaks.

[3]Cherrybark, N. red, and shumard oaks.

[4]Totals may not add due to rounding.

Table 4.—*Approximate number of trees and percentage of damage/defect by softwood species and damaging agent or defect in Alabama*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Loblolly pine | 1,297,801,000 | 433,416,000 | 218,976,000 |
| Insects—other | 0.1 | 0.2 | 0.3 |
| Bark beetles | 0.1 | 0.3 | 0.8 |
| Terminal, shoot, & stem borers | 3.2 | 1.7 | 0.9 |
| Diseases—other | 0.6 | 0.5 | 1.7 |
| Fusiform rust | 11.4 | 14.8 | 16.5 |
| Root rots | 0.0 | 0.0 | 0.2 |
| Branch stubs | 0.2 | 0.2 | 1.1 |
| Basal defects | 0.5 | 0.7 | 1.0 |
| Dieback | 0.1 | 0.0 | 0.1 |
| Fire | 0.5 | 0.4 | 0.7 |
| Beaver | 0.0 | 0.6 | 0.2 |
| Sapsucker | 0.0 | 0.0 | 0.5 |
| Weather—other | 4.2 | 3.1 | 1.7 |
| Lightning | 0.0 | 0.0 | 0.1 |
| Hurricane | 0.2 | 0.3 | 0.0 |
| Tornado | 0.0 | 0.0 | 0.1 |
| Ice | 2.8 | 1.9 | 0.5 |
| Suppression, stagnation | 12.8 | 1.3 | 0.0 |
| People | 0.1 | 0.1 | 0.3 |
| Logging—damage | 1.6 | 1.8 | 1.8 |
| Form (live tree only) | 0.0 | 5.4 | 7.8 |
| Shortleaf pine | 472,117,000 | 164,625,000 | 72,498,000 |
| Insects—other | 0.0 | 0.1 | 0.3 |
| Bark beetles | 0.2 | 0.3 | 0.9 |
| Terminal, shoot, & stem borers | 3.1 | 1.3 | 0.8 |
| Diseases—other | 0.4 | 2.3 | 3.1 |
| Fusiform rust | 1.8 | 0.9 | 0.6 |
| Littleleaf disease | 1.0 | 1.3 | 0.3 |
| Branch stubs | 0.0 | 0.1 | 1.2 |
| Basal defects | 0.9 | 1.6 | 1.5 |
| Dieback | 0.0 | 0.4 | 0.0 |
| Fire | 0.6 | 0.8 | 0.5 |
| Animals | 0.1 | 0.0 | 0.0 |
| Sapsucker | 0.0 | 0.2 | 0.5 |
| Weather—other | 4.9 | 3.4 | 2.8 |
| Lightning | 0.0 | 0.0 | 0.1 |
| Ice | 2.6 | 1.3 | 0.2 |
| Suppression, stagnation | 28.4 | 3.2 | 0.1 |
| People | 0.1 | 0.3 | 0.5 |
| Logging—damage | 2.2 | 1.9 | 2.3 |
| Form (live tree only) | 0.6 | 5.8 | 10.0 |
| Slash pine | 225,674,000 | 84,455,000 | 29,334,000 |
| Insects—other | 0.5 | 0.8 | 0.9 |
| Bark beetles | 0.0 | 0.3 | 0.7 |
| Terminal, shoot, & stem borers | 0 5 | 0.2 | 0.3 |
| Diseases—other | 0.8 | 0.5 | 3.0 |
| Fusiform rust | 8.4 | 10.0 | 10.6 |
| Branch stubs | 0.0 | 0.7 | 1.7 |
| Basal defects | 1.0 | 0.4 | 1.3 |
| Fire | 0.3 | 1.8 | 0.4 |
| Sapsucker | 0.0 | 0.1 | 2.7 |
| Weather—other | 3.7 | 3.3 | 1.8 |
| Hurricane | 2.7 | 2.9 | 1.0 |
| Tornado | 0.0 | 0.2 | 0.0 |
| Ice | 0.0 | 0.0 | 0.1 |
| Suppression, stagnation | 9.9 | 1.0 | 0.0 |
| People | 0.0 | 0.2 | 0.2 |
| Logging—damage | 0.0 | 0.9 | 0.8 |
| Turpentining | 0.0 | 0.0 | 0.8 |
| Form (live tree only) | 0.2 | 2.6 | 4.0 |

Table 4.—*Approximate number of trees and percentage of damage/defect by softwood species and damaging agent or defect in Alabama—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Virginia pine | 188,815,000 | 75,910,000 | 25,269,000 |
| Insects—other | 0.3 | 0.0 | 0.0 |
| Terminal, shoot, & stem borers | 6.1 | 2.3 | 3.6 |
| Diseases—other | 3.2 | 2.9 | 4.8 |
| Fusiform rust | 4.2 | 2.8 | 3.5 |
| Root rots | 0.0 | 0.3 | 0.0 |
| Branch stubs | 0.3 | 0.0 | 0.9 |
| Basal defects | 0.6 | 0.9 | 0.9 |
| Fire | 1.1 | 1.1 | 2.2 |
| Beaver | 0.0 | 0.0 | 0.3 |
| Sapsucker | 0.0 | 0.0 | 0.9 |
| Weather—other | 4.9 | 2.5 | 2.8 |
| Lightning | 0.0 | 0.0 | 0.4 |
| Ice | 2.3 | 2.1 | 0.3 |
| Suppression, stagnation | 20.9 | 0.7 | 0.0 |
| People | 0.3 | 0.5 | 0.9 |
| Logging—damage | 0.9 | 3.7 | 2.4 |
| Turpentining | 0.0 | 0.0 | 0.2 |
| Form (live tree only) | 0.2 | 10.5 | 20.6 |
| Longleaf pine | 129,388,000 | 55,694,000 | 45,203,000 |
| Insects—other | 0.0 | 2.1 | 1.5 |
| Bark beetles | 0.0 | 1.1 | 2.5 |
| Terminal, shoot, & stem borers | 3.0 | 1.5 | 0.6 |
| Diseases—other | 0.4 | 1.7 | 2.6 |
| Branch stubs | 0.0 | 0.2 | 0.7 |
| Basal defects | 0.0 | 0.3 | 1.4 |
| Dieback | 0.4 | 0.4 | 0.2 |
| Pitch canker | 0.0 | 0.0 | 0.5 |
| Fire | 2.6 | 2.2 | 3.8 |
| Sapsucker | 0.0 | 0.7 | 3.7 |
| Weather—other | 6.9 | 4.5 | 2.0 |
| Flooding | 0.0 | 0.4 | 0.0 |
| Hurricane | 3.9 | 1.9 | 0.5 |
| Ice | 1.2 | 0.0 | 0.2 |
| Suppression, stagnation | 7.1 | 1.2 | 0.0 |
| People | 0.4 | 0.3 | 0.0 |
| Logging—damage | 2.6 | 1.5 | 1.5 |
| Turpentining | 0.0 | 0.0 | 0.8 |
| Offsite tree | 0.0 | 0.0 | 0.2 |
| Form (live tree only) | 0.0 | 4.1 | 3.9 |
| Eastern redcedar | 106,771,000 | 16,254,000 | 3,421,000 |
| Terminal, shoot, & stem borers | 2.9 | 1.6 | 0.0 |
| Diseases—other | 1.4 | 9.6 | 9.8 |
| Gall rust (cedar apple rust) | 0.0 | 1.1 | 0.9 |
| Branch stubs | 0.5 | 1.9 | 2.7 |
| Branch defects | 3.9 | 6.4 | 13.1 |
| Dieback | 0.0 | 0.0 | 2.4 |
| Fire | 0.9 | 3.7 | 0.0 |
| Animals | 0.5 | 0.0 | 0.0 |
| Sapsucker | 0.0 | 0.0 | 2.4 |
| Weather—other | 3.3 | 5.3 | 0.0 |
| Hurricane | 0.5 | 0.0 | 0.0 |
| Ice | 0.6 | 0.0 | 1.6 |
| Suppression, stagnation | 9.6 | 0.0 | 0.0 |
| People | 0.5 | 0.7 | 0.0 |
| Logging—damage | 2.5 | 2.7 | 0.0 |
| Form (live tree only) | 0.0 | 19.5 | 15.6 |
| Spruce pine | 16,116,000 | 7,578,000 | 6,955,000 |
| Terminal, shoot, & stem borers | 2.9 | 0.0 | 0.0 |
| Diseases—other | 0.0 | 7.7 | 7.7 |
| Fusiform rust | 0.0 | 0.0 | 2.1 |

Table 4.—*Approximate number of trees and percentage of damage/defect by softwood species and damaging agent or defect in Alabama—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Spruce pine—Continued | | | |
| Branch stubs | 0.0 | 2.6 | 4.8 |
| Basal defects | 3.3 | 6.2 | 2.1 |
| Beaver | 0.0 | 0.0 | 2.4 |
| Sapsucker | 0.0 | 0.0 | 1.3 |
| Weather—other | 6.8 | 6.2 | 2.9 |
| Flooding | 0.0 | 0.0 | 0.6 |
| Suppression, stagnation | 19.3 | 0.0 | 0.0 |
| People | 0.0 | 1.4 | 0.0 |
| Logging—damage | 0.0 | 6.3 | 1.1 |
| Offsite tree | 0.0 | 0.0 | 0.9 |
| Form (live tree only) | 0.0 | 9.1 | 19.9 |
| Baldcypress | 7,575,000 | 3,768,000 | 4,334,000 |
| Terminal, shoot, & stem borers | 0.0 | 0.0 | 0.1 |
| Diseases—other | 0.0 | 0.0 | 2.9 |
| Basal defects | 0.0 | 4.1 | 1.6 |
| Dieback | 0.0 | 4.7 | 0.0 |
| Sapsucker | 0.0 | 0.0 | 2.1 |
| Weather—other | 7.4 | 5.8 | 2.3 |
| Lightning | 0.0 | 0.0 | 0.5 |
| Hurricane | 0.0 | 0.0 | 0.3 |
| Suppression, stagnation | 0.0 | 0.0 | 2.0 |
| People | 0.0 | 4.1 | 0.7 |
| Logging—damage | 28.8 | 4.7 | 0.7 |
| Form (live tree only) | 0.0 | 16.2 | 8.7 |
| Eastern hemlock | 9,377,000 | 754,000 | 371,000 |
| Terminal, shoot, & stem borers | 10.6 | 0.0 | 0.0 |
| Weather—other | 5.8 | 0.0 | 0.0 |
| Suppression, stagnation | 11.6 | 0.0 | 0.0 |
| Atlantic white cedar | 0 | 965,000 | 476,000 |
| Basal defects | 0.0 | 0.0 | 11.0 |
| Form (live tree only) | 0.0 | 0.0 | 45.7 |
| Southern redcedar | 0 | 357,000 | 0 |
| Weather—other | 0.0 | 100.0 | 0.0 |

Table 5.—*Approximate number of trees and percentage of damage incidence by hardwood species group and damaging agent or growth defect in Alabama*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Other eastern hardwoods | 3,507,541,000 | 244,588,000 | 31,701,000 |
| Insects—other | 0.1 | 0.1 | 0.1 |
| Hardwood borers | 0.1 | 0.1 | 0.6 |
| Terminal, shoot, & stem borers | 5.5 | 1.0 | 0.9 |
| Diseases—other | 2.4 | 7.7 | 9.4 |
| Root rots | 0.0 | 0.3 | 0.4 |
| Hardwood cankers | 0.2 | 0.1 | 0.0 |
| Branch stubs | 1.0 | 0.8 | 2.2 |
| Basal defects | 2.7 | 4.1 | 3.8 |
| Dieback | 0.5 | 0.6 | 0.6 |
| Fire | 0.6 | 1.0 | 0.4 |
| Beaver | 0.1 | 0.5 | 1.3 |
| Sapsucker | 0.0 | 0.6 | 2.5 |
| Weather—other | 6.8 | 3.5 | 3.7 |
| Flooding | 0.0 | 0.1 | 0.4 |
| Lightning | 0.0 | 0.0 | 0.2 |
| Hurricane | 0.1 | 1.4 | 2.3 |
| Ice | 0.1 | 0.0 | 0.2 |
| Suppression, stagnation | 11.7 | 1.2 | 0.0 |
| People | 0.3 | 0.4 | 0.2 |
| Logging—damage | 3.2 | 1.8 | 0.4 |
| Offsite tree | 0.0 | 0.1 | 0.1 |
| Form (live tree only) | 0.2 | 21.1 | 26.4 |
| Sweetgum | 1,633,802,000 | 252,131,000 | 32,108,000 |
| Insects—other | 0.2 | 0.0 | 0.0 |
| Terminal, shoot, & stem borers | 6.2 | 1.7 | 0.7 |
| Diseases—other | 2.9 | 5.1 | 11.3 |
| Root rots | 0.0 | 0.0 | 0.7 |
| Branch stubs | 0.5 | 0.5 | 1.3 |
| Basal defects | 4.6 | 5.2 | 7.0 |
| Dieback | 0.5 | 2.2 | 0.6 |
| Fire | 1.2 | 1.9 | 1.1 |
| Beaver | 0.1 | 2.8 | 8.3 |
| Sapsucker | 0.0 | 0.0 | 0.2 |
| Weather—other | 7.6 | 4.2 | 3.3 |
| Flooding | 0.0 | 0.0 | 0.1 |
| Hurricane | 0.1 | 0.1 | 0.3 |
| Tornado | 0.0 | 0.0 | 0.2 |
| Ice | 0.3 | 0.1 | 0.0 |
| Suppression, stagnation | 23.6 | 3.7 | 0.4 |
| People | 0.4 | 0.4 | 0.6 |
| Logging—damage | 6.5 | 5.0 | 2.4 |
| TSI (dead trees only) | 0.0 | 0.0 | 0.1 |
| Form (live tree only) | 0.2 | 12.3 | 18.1 |
| Other red oaks | 1,434,140,000 | 258,489,000 | 70,982,000 |
| Insects—other | 0.2 | 0.1 | 0.0 |
| Hardwood borers | 0.3 | 0.9 | 0.6 |
| Terminal, shoot, & stem borers | 5.8 | 0.8 | 0.5 |
| Diseases—other | 1.3 | 5.5 | 15.6 |
| Root rots | 0.0 | 0.0 | 0.5 |
| Hardwood cankers | 0.0 | 0.5 | 1.1 |
| Branch stubs | 1.3 | 2.1 | 5.1 |
| Basal defects | 3.1 | 5.6 | 5.7 |
| Dieback | 0.5 | 0.6 | 0.8 |
| Fire | 1.2 | 1.4 | 1.0 |
| Beaver | 0.0 | 0.1 | 0.1 |
| Sapsucker | 0.0 | 0.1 | 0.2 |
| Weather—other | 8.1 | 2.5 | 1.9 |
| Lightning | 0.0 | 0.0 | 0.2 |
| Hurricane | 0.3 | 0.2 | 0.5 |
| Ice | 0.3 | 0.1 | 0.2 |

Table 5.—*Approximate number of trees and percentage of damage incidence by hardwood species group and damaging agent or growth defect in Alabama—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Other red oaks—Continued | | | |
| Suppression, stagnation | 14.5 | 0.6 | 0.0 |
| People | 0.2 | 0.2 | 0.4 |
| Logging—damage | 3.6 | 2.2 | 0.7 |
| Offsite tree | 0.0 | 0.1 | 0.0 |
| Form (live tree only) | 0.0 | 13.6 | 18.3 |
| Hickories | 749,983,000 | 122,829,000 | 29,380,000 |
| Insects—other | 0.9 | 0.1 | 0.2 |
| Hardwood borers | 0.6 | 0.2 | 0.3 |
| Bark beetles | 0.0 | 0.1 | 0.0 |
| Terminal, shoot, & stem borers | 19.5 | 2.6 | 0.9 |
| Diseases—other | 1.7 | 6.6 | 10.5 |
| Root rots | 0.0 | 0.0 | 0.5 |
| Hardwood cankers | 0.0 | 0.2 | 0.2 |
| Branch stubs | 1.3 | 1.3 | 4.9 |
| Basal defects | 3.8 | 4.8 | 4.7 |
| Dieback | 0.4 | 1.0 | 0.1 |
| Fire | 1.5 | 3.8 | 3.3 |
| Animals | 0.0 | 0.0 | 0.1 |
| Beaver | 0.0 | 0.0 | 0.1 |
| Sapsucker | 0.0 | 0.2 | 2.3 |
| Weather—other | 8.5 | 2.8 | 2.2 |
| Flooding | 0.1 | 0.1 | 0.0 |
| Lightning | 0.0 | 0.0 | 0.3 |
| Hurricane | 0.1 | 0.3 | 0.5 |
| Tornado | 0.0 | 0.0 | 0.2 |
| Ice | 0.2 | 0.2 | 0.0 |
| Suppression, stagnation | 22.6 | 0.6 | 0.0 |
| People | 0.3 | 0.3 | 0.5 |
| Logging—damage | 5.4 | 1.9 | 0.8 |
| Offsite tree | 0.0 | 0.1 | 0.0 |
| Form (live tree only) | 0.1 | 20.6 | 26.0 |
| Soft maple | 718,425,000 | 54,549,000 | 7,752,000 |
| Hardwood borers | 0.7 | 0.0 | 0.9 |
| Bark beetles | 0.1 | 0.0 | 0.0 |
| Terminal, shoot, & stem borers | 12.9 | 1.2 | 1.4 |
| Diseases—other | 3.9 | 11.4 | 21.7 |
| Root rots | 0.1 | 0.2 | 1.7 |
| Hardwood cankers | 0.7 | 0.3 | 0.3 |
| Branch stubs | 3.0 | 3.0 | 3.4 |
| Basal defects | 4.8 | 2.8 | 5.1 |
| Dieback | 0.1 | 0.6 | 4.1 |
| Fire | 0.5 | 0.5 | 0.7 |
| Beaver | 0.3 | 0.4 | 0.7 |
| Sapsucker | 0.0 | 0.0 | 0.7 |
| Weather—other | 14.2 | 3.5 | 2.2 |
| Flooding | 0.2 | 0.3 | 0.8 |
| Hurricane | 0.3 | 2.9 | 0.8 |
| Ice | 0.5 | 0.4 | 0.0 |
| Suppression, stagnation | 21.4 | 1.4 | 0.0 |
| People | 0.2 | 0.0 | 0.9 |
| Logging—damage | 5.2 | 5.6 | 1.3 |
| Offsite trees | 0.0 | 0.1 | 0.0 |
| Form (live tree only) | 0.3 | 41.2 | 38.6 |
| Blackgum/tupelo | 634,536,000 | 113,351,000 | 27,398,000 |
| Insects—other | 0.0 | 0.2 | 0.1 |
| Hardwood borers | 0.3 | 0.2 | 0.3 |
| Terminal, shoot, & stem borers | 13.1 | 1.4 | 1.4 |
| Diseases—other | 3.5 | 8.9 | 14.5 |
| Root rots | 0.0 | 0.4 | 0.2 |

Table 5.—*Approximate number of trees and percentage of damage incidence by hardwood species group and damaging agent or growth defect in Alabama—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Blackgum/tupelo—Continued | | | |
| Hardwood cankers | 0.0 | 0.0 | 0.2 |
| Branch stubs | 1.6 | 0.8 | 1.0 |
| Basal defects | 3.3 | 4.0 | 4.4 |
| Dieback | 0.9 | 1.2 | 1.3 |
| Fire | 1.3 | 2.4 | 0.9 |
| Beaver | 0.8 | 2.9 | 1.7 |
| Sapsucker | 0.0 | 0.0 | 0.1 |
| Weather—other | 10.4 | 5.6 | 4.6 |
| Flooding | 0.0 | 0.4 | 0.1 |
| Hurricane | 0.7 | 1.2 | 0.8 |
| Tornado | 0.1 | 0.0 | 0.0 |
| Ice | 0.2 | 0.0 | 0.0 |
| Suppression, stagnation | 32.4 | 4.8 | 0.0 |
| People | 0.2 | 0.6 | 0.0 |
| Logging—damage | 4.8 | 2.4 | 0.7 |
| Offsite tree | 0.0 | 0.3 | 0.0 |
| Form (live tree only) | 0.3 | 22.6 | 24.2 |
| Other white oaks | 425,827,000 | 100,351,000 | 24,009,000 |
| Insects—other | 0.1 | 0.1 | 0.1 |
| Hardwood borers | 0.1 | 0.4 | 0.3 |
| Terminal, shoot, & stem borers | 11.5 | 2.2 | 1.2 |
| Diseases—other | 2.8 | 7.0 | 12.6 |
| Root rots | 0.0 | 0.1 | 0.7 |
| Hardwood cankers | 0.0 | 0.2 | 0.2 |
| Branch stubs | 1.5 | 3.9 | 8.2 |
| Basal defects | 2.7 | 5.3 | 5.3 |
| Dieback | 0.9 | 0.5 | 0.3 |
| Fire | 2.1 | 2.1 | 1.7 |
| Sapsucker | 0.0 | 0.0 | 0.6 |
| Weather—other | 13.3 | 2.4 | 0.8 |
| Lightning | 0.0 | 0.1 | 0.2 |
| Hurricane | 0.0 | 0.5 | 0.4 |
| Ice | 0.1 | 0.3 | 0.0 |
| Suppression, stagnation | 22.7 | 1.5 | 0.0 |
| People | 0.6 | 0.7 | 0.5 |
| Logging—damage | 3.8 | 3.2 | 0.2 |
| Offsite tree | 0.0 | 0.2 | 0.1 |
| Form (live tree only) | 0.0 | 19.9 | 28.5 |
| Select white oaks[1] | 323,486,000 | 78,301,000 | 26,159,000 |
| Insects—other | 0.2 | 0.1 | 0.0 |
| Hardwood borers | 0.0 | 0.4 | 0.1 |
| Terminal, shoot, & stem borers | 11.5 | 1.7 | 0.5 |
| Diseases—other | 0.8 | 3.3 | 7.0 |
| Root rots | 0.0 | 0.0 | 0.4 |
| Hardwood cankers | 0.0 | 0.3 | 0.1 |
| Branch stubs | 1.0 | 1.4 | 6.2 |
| Basal defects | 2.2 | 5.1 | 4.8 |
| Dieback | 0.9 | 1.0 | 0.5 |
| Fire | 1.3 | 1.2 | 1.5 |
| Beaver | 0.0 | 0.2 | 0.0 |
| Sapsucker | 0.0 | 0.8 | 1.5 |
| Weather—other | 9.5 | 2.1 | 0.5 |
| Flooding | 0.0 | 0.3 | 0.0 |
| Lightning | 0.0 | 0.0 | 0.1 |
| Hurricane | 0.2 | 0.0 | 0.0 |
| Ice | 0.4 | 0.0 | 0.0 |
| Suppression, stagnation | 21.3 | 0.8 | 0.0 |
| People | 0.6 | 0.2 | 0.7 |
| Logging—damage | 4.2 | 3.6 | 1.5 |
| Offsite tree | 0.2 | 0.0 | 0.0 |
| Form (live tree only) | 0.0 | 15.3 | 21.1 |

Table 5.—*Approximate number of trees and percentage of damage incidence by hardwood species group and damaging agent or growth defect in Alabama—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Yellow-poplar | 155,452,000 | 42,370,000 | 21,160,000 |
| Insects—other | 0.0 | 0.0 | 0.2 |
| Hardwood borers | 0.0 | 0.6 | 1.2 |
| Terminal, shoot, & stem borers | 5.4 | 2.8 | 1.0 |
| Diseases—other | 1.4 | 2.3 | 8.4 |
| Root rots | 0.3 | 0.0 | 0.8 |
| Hardwood cankers | 0.4 | 0.9 | 0.5 |
| Branch stubs | 0.0 | 0.2 | 1.0 |
| Basal defects | 5.0 | 4.9 | 6.5 |
| Dieback | 1.1 | 0.0 | 0.4 |
| Fire | 1.1 | 0.5 | 1.9 |
| Beaver | 0.4 | 0.5 | 0.5 |
| Sapsucker | 0.0 | 0.0 | 2.3 |
| Weather—other | 9.2 | 7.4 | 4.1 |
| Flooding | 0.0 | 0.2 | 0.0 |
| Hurricane | 0.0 | 0.8 | 0.8 |
| Ice | 1.0 | 0.8 | 0.0 |
| Suppression, stagnation | 7.6 | 0.5 | 0.1 |
| People | 0.0 | 0.5 | 0.4 |
| Logging—damage | 3.4 | 3.5 | 1.5 |
| Form (live tree only) | 0.0 | 15.2 | 17.8 |
| Ash | 177,194,000 | 28,605,000 | 7,828,000 |
| Insects—other | 0.0 | 0.0 | 0.4 |
| Terminal, shoot, & stem borers | 13.4 | 3.8 | 1.3 |
| Diseases—other | 0.9 | 6.3 | 12.1 |
| Root rots | 0.3 | 0.0 | 1.2 |
| Branch stubs | 1.5 | 1.5 | 1.8 |
| Basal defects | 1.1 | 2.3 | 3.6 |
| Dieback | 1.2 | 0.7 | 0.9 |
| Fire | 0.3 | 0.0 | 1.5 |
| Beaver | 0.6 | 3.6 | 7.1 |
| Sapsucker | 0.0 | 1.0 | 1.3 |
| Weather—other | 22.2 | 8.6 | 2.3 |
| Flooding | 1.2 | 0.0 | 0.7 |
| Hurricane | 0.0 | 0.6 | 2.2 |
| Suppression, stagnation | 26.9 | 1.8 | 0.0 |
| People | 0.0 | 1.0 | 0.0 |
| Logging—damage | 2.6 | 1.1 | 1.1 |
| Form (live tree only) | 0.6 | 31.1 | 28.7 |
| Hard maple | 86,337,000 | 4,791,000 | 967,000 |
| Terminal, shoot, & stem borers | 17.0 | 0.0 | 0.0 |
| Diseases—other | 1.8 | 9.5 | 5.7 |
| Hardwood cankers | 1.4 | 0.0 | 0.0 |
| Branch stubs | 4.9 | 12.2 | 15.7 |
| Basal defects | 2.0 | 2.7 | 8.2 |
| Dieback | 0.0 | 0.0 | 6.9 |
| Fire | 0.6 | 4.8 | 14.0 |
| Sapsucker | 0.0 | 0.0 | 10.7 |
| Weather—other | 18.2 | 4.7 | 7.6 |
| Suppression, stagnation | 20.7 | 0.0 | 0.0 |
| Logging—damage | 5.2 | 0.0 | 0.0 |
| Form (live tree only) | 0.6 | 21.6 | 27.2 |
| Noncommercial | 78,277,000 | 8,318,000 | 69,000 |
| Terminal, shoot, & stem borers | 1.3 | 0.0 | 0.0 |
| Diseases—other | 0.0 | 3.4 | 0.0 |
| Basal defects | 1.8 | 0.0 | 0.0 |
| Fire | 0.0 | 2.0 | 0.0 |
| Weather—other | 0.6 | 0.0 | 0.0 |
| Suppression, stagnation | 2.8 | 0.0 | 0.0 |

Table 5.—*Approximate number of trees and percentage of damage incidence by hardwood species group and damaging agent or growth defect in Alabama—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Select red oaks[2] | 53,757,000 | 15,547,000 | 9,173,000 |
| Insects—other | 1.1 | 0.0 | 0.4 |
| Hardwood borers | 1.0 | 2.8 | 0.2 |
| Terminal, shoot, & stem borers | 8.9 | 0.4 | 1.1 |
| Diseases—other | 3.9 | 4.2 | 12.7 |
| Root rots | 0.0 | 0.0 | 1.7 |
| Hardwood cankers | 1.0 | 1.3 | 0.0 |
| Branch stubs | 1.0 | 3.3 | 4.9 |
| Basal defects | 3.9 | 4.1 | 5.2 |
| Dieback | 2.0 | 0.7 | 0.8 |
| Fire | 0.0 | 0.7 | 1.9 |
| Sapsucker | 0.0 | 0.0 | 0.4 |
| Weather—other | 16.4 | 4.1 | 1.3 |
| Lightning | 0.0 | 0.0 | 0.5 |
| Suppression, stagnation | 18.2 | 0.0 | 0.2 |
| People | 1.0 | 1.8 | 0.1 |
| Logging—damage | 3.0 | 1.1 | 0.7 |
| Form (live tree only) | 0.0 | 18.1 | 19.6 |
| Beech | 31,372,000 | 6,966,000 | 4,460,000 |
| Terminal, shoot, & stem borers | 15.1 | 4.1 | 0.6 |
| Diseases—other | 0.0 | 6.8 | 27.2 |
| Root rots | 0.0 | 1.9 | 2.1 |
| Branch stubs | 1.6 | 3.4 | 1.4 |
| Basal defects | 3.7 | 2.3 | 3.7 |
| Fire | 1.7 | 3.9 | 5.0 |
| Beaver | 0.0 | 0.0 | 0.6 |
| Weather—other | 8.6 | 4.0 | 0.5 |
| Flooding | 0.0 | 0.0 | 1.0 |
| Suppression, stagnation | 16.6 | 0.0 | 0.0 |
| Logging—damage | 5.1 | 3.7 | 0.0 |
| Form (live tree only) | 1.8 | 29.3 | 23.1 |
| Basswood | 21,587,000 | 3,837,000 | 1,065,000 |
| Terminal, shoot, & stem borers | 12.6 | 0.0 | 0.0 |
| Diseases—other | 2.3 | 4.7 | 26.1 |
| Root rots | 0.0 | 1.8 | 6.2 |
| Branch stubs | 4.9 | 2.6 | 0.0 |
| Basal defects | 0.0 | 0.0 | 4.5 |
| Fire | 0.0 | 3.1 | 0.0 |
| Sapsucker | 0.0 | 6.2 | 9.6 |
| Weather—other | 30.9 | 5.9 | 0.0 |
| Suppression, stagnation | 7.0 | 0.0 | 0.0 |
| Logging—damage | 0.0 | 7.9 | 0.0 |
| TSI (dead trees only) | 0.0 | 6.1 | 0.0 |
| Form (live tree only) | 0.0 | 28.5 | 25.4 |
| Black walnut | 5,016,000 | 1,397,000 | 327,000 |
| Terminal, shoot, & stem borers | 9.9 | 8.0 | 0.0 |
| Diseases—other | 12.9 | 0.0 | 15.5 |
| Branch stubs | 0.0 | 0.0 | 9.7 |
| Weather—other | 31.6 | 0.0 | 0.0 |
| Suppression, stagnation | 24.3 | 0.0 | 0.0 |
| Logging—damage | 10.6 | 0.0 | 0.0 |
| Form (live tree only) | 0.0 | 47.2 | 54.2 |
| Cottonwood | 1,638,000 | 727,000 | 382,000 |
| Diseases—other | 0.0 | 0.0 | 55.5 |
| Basal defects | 0.0 | 0.0 | 10.5 |
| Weather—other | 0.0 | 11.7 | 4.1 |
| Suppression, stagnation | 33.3 | 0.0 | 0.0 |
| Form (live tree only) | 0.0 | 32.4 | 13.0 |

[1]White, swamp white, swamp chestnut, and bur oaks.
[2]Cherrybark, N. red, and shumard oaks.

Table 6.—*Poletimber and sawtimber removals and wood losses in Alabama*

| Species | Annual timber removals | | Volume loss | | | |
|---|---|---|---|---|---|---|
| | | | Annual mortality | | Annual accumulated cull[1] | |
| | Poletimber | Sawtimber | Poletimber | Sawtimber | Poletimber | Sawtimber |
| | *Mft³* | *Mfbm* | *Mft³* | *Mfbm* | *Mft³* | *Mfbm* |
| Softwoods | | | | | | |
| Loblolly pine | 74,794.0 | 1,941,455.4 | 19,628.3 | 210,615.8 | 6,193.2 | 36,589.4 |
| Shortleaf pine | 40,841.0 | 669,764.9 | 21,379.4 | 136,014.0 | 666.8 | 7,099.3 |
| Slash pine | 15,618.5 | 149,158.4 | 3,332.2 | 25,737.9 | 963.3 | 2,733.7 |
| Virginia pine | 8,770.4 | 57,332.0 | 2,133.9 | 19,126.2 | 855.3 | 2,951.1 |
| Longleaf pine | 9,680.7 | 344,970.5 | 1,206.0 | 28,097.9 | 253.8 | 3,610.8 |
| E. redcedar | 727.5 | 3,043.8 | 684.5 | 2,388.6 | 203.5 | 0.0 |
| Spruce pine | 790.2 | 56,557.7 | 268.4 | 4,973.6 | 49.7 | 1,636.5 |
| Baldcypress | 0.0 | 23,704.4 | 85.3 | 4,184.3 | 88.8 | 627.9 |
| Atlantic white cedar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 54.6 |
| Totals | 151,222.6 | 3,245,989.8 | 48,718.0 | 431,138.3 | 9,274.5 | 55,308.4 |
| Hardwoods | | | | | | |
| Other eastern hardwoods | 6,839.9 | 47,142.4 | 7,189.2 | 36,814.9 | 9,307.5 | 5,319.8 |
| Sweetgum | 15,927.8 | 128,147.4 | 5,515.8 | 42,557.0 | 5,195.9 | 7,663.2 |
| Other red oaks | 22,127.2 | 264,144.8 | 5,083.4 | 78,728.5 | 6,140.9 | 10,978.6 |
| Hickories | 9,224.3 | 90,608.9 | 1,619.0 | 28,127.9 | 3,466.7 | 5,091.4 |
| Soft maple | 2,259.7 | 13,635.5 | 1,531.6 | 9,707.4 | 2,821.1 | 783.8 |
| Blackgum/tupelo | 3,332.8 | 48,203.7 | 2,029.5 | 24,998.7 | 3,842.4 | 5,123.9 |
| Other white oaks | 8,394.2 | 61,430.1 | 2,384.7 | 19,824.7 | 3,838.9 | 5,098.9 |
| Select white oaks[2] | 6,493.1 | 106,888.0 | 614.5 | 11,248.9 | 1,710.8 | 4,377.5 |
| Yellow-poplar | 3,160.6 | 56,099.7 | 1,244.4 | 11,156.8 | 2,313.9 | 4,533.4 |
| Ash | 1,938.6 | 14,224.7 | 1,259.6 | 11,587.4 | 807.7 | 2,381.5 |
| Hard maple | 276.0 | 2,111.5 | 0.0 | 0.0 | 121.6 | 91.3 |
| Noncommercial hardwoods | 0.0 | 0.0 | 0.0 | 0.0 | 169.2 | 0.0 |
| Select red oaks[3] | 1,928.6 | 35,605.4 | 282.4 | 10,412.6 | 448.7 | 2,269.2 |
| Beech | 173.6 | 9,366.4 | 0.0 | 6,906.9 | 212.2 | 224.7 |
| Basswood | 96.9 | 573.2 | 0.0 | 679.4 | 124.6 | 363.6 |
| Black walnut | 0.0 | 0.0 | 222.9 | 513.2 | 0.0 | 119.6 |
| Cottonwood | 0.0 | 2,871.1 | 1,137.6 | 4,483.9 | 42.6 | 55.3 |
| Totals | 82,173.0 | 881,051.4 | 30,114.8 | 297,748.0 | 40,564.8 | 54,475.7 |

[1]Cull due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of bole that are too rough to be utilized as pulpwood or sawtimber.

[2]White, swamp white, swamp chestnut, and bur oaks.

[3]Cherrybark, Northern red, and shumard oaks.

Table 7.—*Annual economic impact of damage on the timber resource in Alabama*

| Species | Annual volume wood fiber loss | Stumpage value per unit | Annual loss |
|---|---|---|---|
| | | *Dollars* | |
| Softwoods | | | |
| Poletimber (Mft³) | 57,992.5 | 141.00 | 8,176,942.50 |
| Sawtimber (Mfbm) | 486,446.6 | 152.00 | 73,939,886.85 |
| Hardwoods | | | |
| Poletimber (Mft³) | 70,679.6 | 35.30 | 2,494,988.70 |
| Sawtimber (Mfbm) | 352,223.7 | 53.00 | 18,667,856.74 |
| All species | | | |
| Poletimber (Mft³) | 128,672.1 | | 10,671,931.20 |
| Sawtimber (Mfbm) | 838,670.3 | | 92,607,743.58 |
| Total | | | 103,279,674.78 |

# Appendix II—Scientific Names of Tree Species Mentioned

| Common Name | Scientific Name |
|---|---|
| American elm | Ulmus americana L. |
| Ash | Fraxinus spp. |
| Atlantic white cedar | Chamaecyparis thyoides (L.) B.S.P. |
| Baldcypress | Taxodium distichum (L.) Rich. |
| Basswood | Tilia americana L. |
| Bear oak | Quercus ilicifolia Wangenh. |
| Beech | Fagus grandifolia Ehrh. |
| Black maple | Acer nigrum Michx. |
| Black oak | Quercus velutina Lam. |
| Black walnut | Juglans nigra L. |
| Blackgum | Nyssa sylvatica Marsh. |
| Birch | Betula spp. |
| Boxelder | Acer negundo L. |
| Buckeye | Aesculus spp. |
| Bur oak | Quercus macrocarpa Michx. |
| Butternut | Juglans cinerea L. |
| Cherrybark oak | Quercus falcata var. pagodifolia Ell. |
| Chestnut oak | Quercus prinus L. |
| Cottonwood | Populus deltoides Bartr. ex Marsh. |
| Cucumbertree | Magnolia acuminata L. |
| Cypress | Cupressus spp. |
| Dogwood | Cornus florida L. |
| Eastern hemlock | Tsuga canadensis (L.) Carr. |
| Eastern red cedar | Juniperus virginiana L. |
| Florida maple | Acer barbatum Michx. |
| Green ash | Fraxinus pennsylvanica Marsh. |
| Gums | Nyssa spp. |
| Hackberry | Celtis occidentalis L. |
| Hickories | Carya spp. |
| Holly | Ilex opaca Art. |
| Honeylocust | Gleditsia tricanthos L. |
| Laurel oak | Quercus laurifolia Michx. |
| Live oak | Quercus virginiana Mill. |
| Loblolly pine | Pinus taeda L. |
| Longleaf pine | Pinus pallustris Mill. |
| Maples (soft or hard) | Acer spp. |
| Mulberry | Morus spp. |
| Northern red oak | Quercus rubra L. |
| Nuttall oak | Quercus nuttallii Palmer |
| Oaks (red or white) | Quercus spp. |
| Overcup oak | Quercus lyrata Walt. |
| Pecan | Carya illinoiensis (Wangenh.) K. Koch. |
| Persimmon | Diospyros virginiana L. |
| Pines | Pinus spp. |
| Pond cypress | Taxodium distichum var. nutans (Ait.) Sweet |
| Pond pine | Pinus serotina Michx. |
| Post oak | Quercus stellata Wangenh. |
| Red maple | Acer rubrum L. |
| Sand pine | Pinus clausa (Chapm. ex Engelm.) Vasey ex Sarg. |

# Appendix II—Scientific Names of Tree Species Mentioned— Continued

| Common Name | Scientific Name |
|---|---|
| Scarlet oak | Quercus coccinea Muench. |
| Scrub oak | Quercus spp. |
| Shortleaf pine | Pinus echinata Mill. |
| Shumard oak | Quercus shumardii Buckl. |
| Silver maple | Acer saccharinum L. |
| Silverbell | Halesia spp. |
| Slash pine | Pinus elliotii Enelm. |
| Southern red oak | Quercus falcata Michx. |
| Southern redcedar | Juniperus silicicola (Small) Bailey |
| Spruce pine | Pinus glabra Walt. |
| Sugar maple | Acer saccharum Marsh. |
| Sugarberry | Celtis laevigata Willd. |
| Swamp chestnut oak | Quercus michauxii Nutt. |
| Swamp tupelo | Nyssa aquatica L. |
| Swamp white oak | Quercus bicolor Willd. |
| Sweetbay | Magnolia virginiana L. |
| Sweetgum | Liquidambar styraciflua L. |
| Sycamore | Platanus occidentalis L. |
| Tupelo | Nyssa spp. |
| Virginia pine | Pinus virginiana Mill. |
| Water hickory | Carya aquatica (Michx. f.) Nutt. |
| Water oak | Quercus nigra L. |
| White oak | Quercus alba L. |
| Willow | Salix spp. |
| Willow oak | Quercus phellos L. |
| Yellow poplar | Liriodendron tulipifera L. |

Mistretta, Paul A.; Bylin, Carl V.; Incidence and impact of damage to Alabama's timber, 1983. Resour. Bull. SO-112. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1986. 20 p.

Data on timber damage collected during a 1981-83 survey of Alabama's forests are tabulated and discussed.

**Additional keywords:** forest resources, injury, insect, disease, survey.

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# Forest Statistics for Northeast Texas Counties-1986

William H. McWilliams and Daniel F. Bertelson

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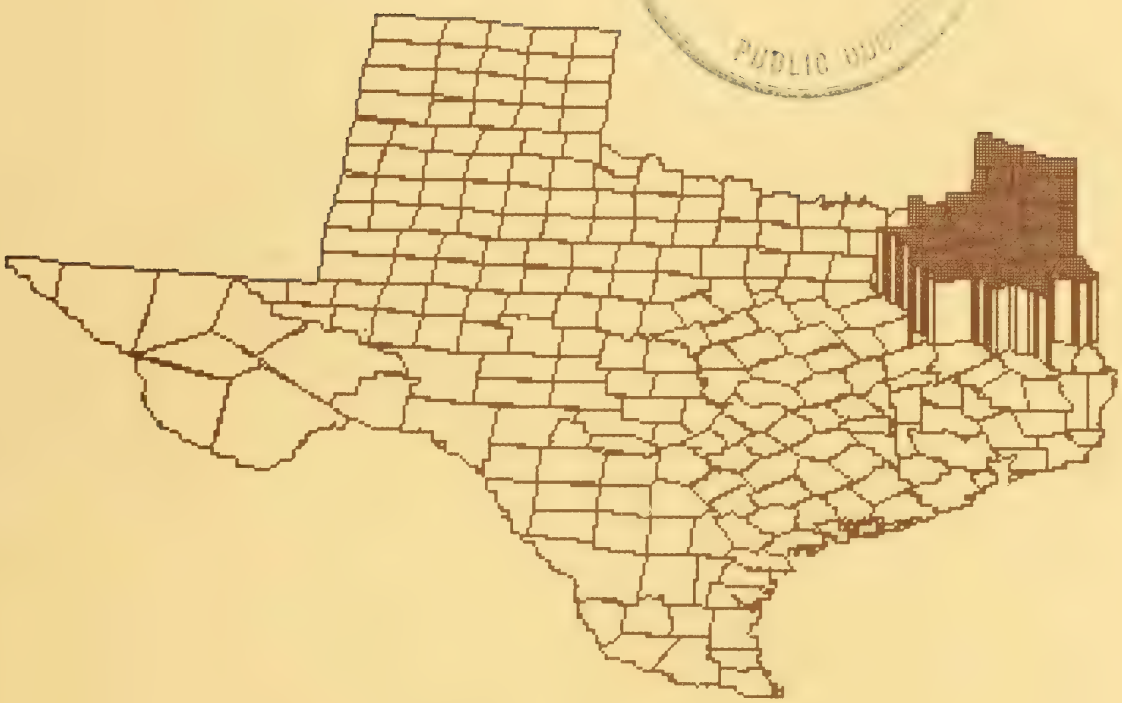

## SUMMARY

The Southern Forest Survey, an activity of the Southern Forest Experiment Station Forest Inventory and Analysis work unit, covers the states of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, East Texas and the island of Puerto Rico.

This survey is part of the nationwide Forest Survey originally authorized by the McSweeney-McNary Act of 1928. More recent legislation pertinent to the survey mission includes the Forest and Rangeland Renewable Resources Planning Act of 1974 and the Forest Rangeland Renewable Resources Research Act of 1978. The survey mission is to develop, analyze and maintain renewable forest resource information. This information is essential for formulation of forest policies and programs.

## ACKNOWLEDGMENTS

The Southern Station gratefully acknowledges the cooperation and assistance provided by the Texas Forest Service and forest industries in collecting field data. Appreciation is also expressed for the cooperation of other public agencies and other private landowners in providing access to the sample locations.

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*Core tables are presented in response to the Southern Industrial Forestry Research Council's recommendations. These tables are identical among Forest Inventory and Analysis units in the eastern United States.

Figure 1.--The Forest Survey Regions of Texas.

# Forest Statistics for Northeast Texas Counties - 1986

William H. McWilliams and Daniel F. Bertelson

## INTRODUCTION

These tables were derived from data obtained during a 1986 inventory of 21 counties comprising the Northeast Unit of Texas (fig. 1). Henderson and Van Zandt counties have been added to the Northeastern Unit since the previous inventory of 1975. All comparisons of the 1975 and 1986 forest statistics made in this Bulletin account for this change. The data on forest acreage and timber volume were secured by a systematic sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurement of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. At each forest location, per acre estimates were obtained from 10 BA 37.5 point samples.

The sampling methods were developed to provide suitable estimates for East Texas. Estimates for smaller areas are presented, but sampling error increases as the area considered decreases. Sampling errors given in Table I are based on one standard deviation or a probability of two chances out of three. To estimate the sampling error for a combination of counties, one can use the following:

$$SE_g = \frac{SE_t \sqrt{X_t}}{\sqrt{X_g}}$$

where:

SE = standard error of estimate (expressed as a percent)
X = variable of interest (area or volume)
g = group of counties to be combined
t = total for the unit

Table I--Sampling errors[1] for timberland, growing stock, and sawtimber, Northeast Texas, 1986

| County | Timberland | Growing stock | | | Sawtimber volume |
|---|---|---|---|---|---|
| | | Volume | Growth | Removals | |
| | Percent | | | | |
| Anderson | 1.8 | 11.3 | 17.3 | 16.7 | 12.9 |
| Bowie | 2.0 | 11.9 | 18.3 | 16.7 | 13.6 |
| Cass | 1.8 | 8.4 | 9.6 | 12.2 | 10.8 |
| Cherokee | 2.2 | 10.2 | 8.8 | 16.2 | 12.1 |
| Harrison | 2.7 | 8.9 | 8.7 | 12.1 | 10.5 |
| Henderson | 2.7 | 13.1 | 26.6 | 36.6 | 15.8 |
| Marion | 2.9 | 9.2 | 8.9 | 19.1 | 10.7 |
| Morris | 4.2 | 21.8 | 22.9 | 30.7 | 23.7 |
| Nacogdoches | 1.7 | 9.7 | 6.8 | 16.4 | 11.4 |
| Panola | 1.8 | 11.0 | 10.3 | 15.8 | 12.0 |
| Red River | 1.2 | 7.6 | 17.0 | 22.4 | 8.6 |
| Rusk | 2.7 | 12.7 | 12.7 | 17.0 | 15.1 |
| Shelby | 1.6 | 12.5 | 11.9 | 16.4 | 15.0 |
| Smith | 2.1 | 12.1 | 17.4 | 16.1 | 13.7 |
| Titus[2] | 2.6 | 18.8 | 21.1 | 27.1 | 22.8 |
| Upshur[3] | 2.6 | 12.7 | 12.4 | 18.6 | 14.7 |
| Van Zandt | 1.9 | 19.7 | 36.3 | 25.8 | 24.7 |
| Wood | 2.9 | 11.7 | 14.9 | 16.6 | 14.0 |
| All counties | 0.5 | 2.9 | 3.2 | 4.4 | 3.4 |

[1] By random-sampling formula.

[2] Camp and Franklin included in Titus.

[3] Gregg included in Upshur.

## HIGHLIGHTS

### Timberland Area

The Northeastern Unit of Texas is 50 percent forested. Ninety-nine percent of the 4,930.1 thousand acres of forest land is classified as timberland capable of growing commercial crops of timber. The area of timberland rose by 1 percent from 4,855.5 thousand acres in 1975 to 4,898.8 thousand acres in 1986.

Nonindustrial private timberland increased by 1 percent to 3,964.6 thousand acres and accounts for 81 percent of the total timberland base. Forest industry timberland, including land under long-term lease, currently totals 746.8 thousand acres, an increase of 4 percent.

The total area of pine types dropped by 15 percent. Increases occurred in both the oak-pine (+5 percent) and the oak-hickory (+16 percent) forest types. Bottomland hardwood forests decreased by 6 percent.

Pine stands of artificial origin increased by 84 percent occupying 243.5 acres of timberland. An additional 225.2 thousand acres were regenerated artificially, but are classified according to actual stocking as oak-pine and hardwood forest types until pines outgrow hardwood competition.

### Number of Trees

Stand tables show significant declines in the number of live softwood trees for the 4-inch through the 12-inch class. The hardwood stand table remained relatively stable, showing decreases in the 2- and 6-inch classes and increases in larger diameters.

### Volume

Expansion of softwood volumes has slowed since the previous survey. The volume of softwood growing stock rose by 13 percent to 2,677.3 million cubic feet. This contrasts a 49 percent increase that occurred between 1965 and 1975 (excluding Henderson and Van Zandt counties). Softwood sawtimber volume increased by 35 percent to 12,024.5 million board feet, compared to a 60 percent rise in 1975 (excluding Henderson and Van Zandt counties).

Hardwood volume increases were similar to those of the previous inventory. The volume of hardwood growing stock expanded by 18 percent and totaled 2,173.5 million cubic feet, while hardwood sawtimber volume increased by 26 percent to 6,271.0 million board feet.

The sound-wood volume of cull trees (rough and rotten trees) increased by 22 percent since 1975. Softwood cull volume represents 3 percent of the total all live softwood timber volume, while hardwood cull volume is 26 percent of the live hardwood timber volume.

### Growth, Removals and Mortality

Average annual gross growth of softwood growing stock increased by 6 percent since 1975, from 185.6 million cubic feet to 195.9 million cubic feet. Average net annual growth of softwoods (average annual gross growth minus average annual mortality) increased by only 2 percent. Average annual mortality nearly doubled for softwoods, going from 6.4 million cubic feet to 12.7 million cubic feet. Average annual removals of softwood growing stock totaled 164.9 million cubic feet, an increase of 10 percent.

Average annual gross growth of hardwood growing stock decreased by 20 percent from 128.2 million cubic feet to 103.2 million cubic feet. Average net annual growth of hardwoods decreased by 27 percent. Average annual mortality increased from 10.0 million cubic feet to 17.3 million cubic feet. Average annual removals of hardwood growing stock totaled 63.9 million cubic feet, an increase of 80 percent.

Tables 1-25 were developed to provide compatability among Forest Inventory and Analysis Projects. Tables 26-35 are supplementary tables and may change from unit to unit or state to state to address specific resource issues.

## DEFINITION OF TERMS

*Average annual gross growth.* — Average annual net growth plus average annual mortality.

*Average net annual growth.* — Average annual net volume increase for the inter-survey period.

*Average annual mortality.* — Average annual sound-wood volume of live trees dying from natural causes.

*Average annual removals.* — Average annual net volume of growing-stock trees removed from the inventory by harvesting, cultural operations (such as timber-stand improvement), land clearing, or changes in land use.

*Forest type.* — A classification of forest land based upon the species forming a plurality of live-tree stocking.

*Growing-stock trees.* — Live trees of commercial species. Rough and rotten trees are excluded.

*Growing-stock volume.* — The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches in diameter at breast height, from a 1-foot stump to a minimum 4.0- inch top diameter outside bark of the central stem, or to the point where the central stem breaks into limbs.

*Noncommercial species.* — Tree species of typically small size, poor form, or inferior quality which normally do not develop into trees suitable for industrial wood products.

*Poletimber trees.* — Growing-stock trees of commercial species at least 5.0 inches in diameter at breast height, but smaller than sawtimber size.

*Rotten trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of rot.

*Reserved timberland.* — Productive public forest land withdrawn from timber utilization through statute or administrative regulations.

*Rough trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of roughness or poor form. Also included are all live trees of noncommercial species.

*Sawtimber trees.* — Live trees that are of commercial species, contain at least a 12-foot saw log, and meet regional specifications for freedom from defect. Softwoods must be at least 9.0 inches in diameter at breast height and hardwoods at least 11.0 inches in diameter at breast height.

*Sawtimber volume.* — Sound-wood volume of the saw-log portion of live sawtimber trees in board feet, International 1/4-inch rule and in cubic feet.

*Site class.* — A classification of forest land in terms of inherent capacity to grow crops of industrial wood.

*Stand-size class.* — A classification of forest land based on the size class of growing-stock trees on the sampled area; that is, sawtimber, poletimber, or sapling and seedling.

*Timberland.* — Forest land that is producing, or is capable of producing, crops of industrial wood and not withdrawn from timber utilization. Timberland is synonymous with "commercial forest land" in prior reports.

*Woodland.* — Forest land incapable of yielding crops of industrial wood because of adverse site conditions.

Table 1--Area by county and land class, Northeast Texas, 1986

| County | All land[1] | Forest land | | | | Nonforest land |
|---|---|---|---|---|---|---|
| | | Total | Timberland[2] | Woodland[3] | Reserved timberland | |
| | Thousand acres | | | | | |
| Anderson | 690.9 | 321.6 | 321.6 | ... | ... | 369.3 |
| Bowie | 590.5 | 259.9 | 259.9 | ... | ... | 330.7 |
| Camp[4] | ... | ... | ... | ... | ... | ... |
| Cass | 614.6 | 440.3 | 440.3 | ... | ... | 174.2 |
| Cherokee | 679.6 | 394.8 | 394.8 | ... | ... | 284.8 |
| Franklin[4] | ... | ... | ... | ... | ... | ... |
| Gregg[5] | ... | ... | ... | ... | ... | ... |
| Harrison | 585.1 | 389.1 | 389.1 | ... | ... | 196.0 |
| Henderson | 607.2 | 193.9 | 162.6 | 31.3 | ... | 413.3 |
| Marion | 269.8 | 200.4 | 200.4 | ... | ... | 69.4 |
| Morris | 166.5 | 65.5 | 65.5 | ... | ... | 101.0 |
| Nacogdoches | 627.2 | 412.8 | 412.8 | ... | ... | 214.5 |
| Panola | 526.6 | 317.2 | 317.2 | ... | ... | 209.4 |
| Red River | 675.5 | 279.0 | 279.0 | ... | ... | 396.6 |
| Rusk | 600.1 | 294.0 | 294.0 | ... | ... | 306.1 |
| Shelby | 534.2 | 349.4 | 349.4 | ... | ... | 184.7 |
| Smith | 607.9 | 256.2 | 256.2 | ... | ... | 351.7 |
| Titus[4] | 590.8 | 191.9 | 191.9 | ... | ... | 398.9 |
| Upshur[5] | 555.5 | 275.6 | 275.6 | ... | ... | 279.8 |
| Van Zandt | 550.0 | 105.3 | 105.3 | ... | ... | 444.7 |
| Wood | 445.4 | 183.1 | 183.1 | ... | ... | 262.3 |
| All counties | 9917.2 | 4930.1 | 4898.8 | 31.3 | ... | 4987.2 |

[1] From U.S. Bureau of the Census.

[2] Forest land (formerly termed commercial forest land) that is producing or capable of producing at least 20 cubic feet of industrial wood per acre per year. Includes areas which may be inaccessible or inoperable by current standards. Excludes reserved timberlands.

[3] Forest land incapable of producing 20 cubic feet of industrial wood per acre per year under natural conditions because of adverse site condition.

[4] Camp and Franklin included in Titus.

[5] Gregg included in Upshur.

Table 2--Area of timberland by county and ownership class, Northeast Texas, 1986

| County | All ownerships | National forest | Misc. federal | State | County and municipal | Forest industry[1] | Farmer | Corporate[2] | Individual[2] |
|---|---|---|---|---|---|---|---|---|---|
| | Thousand acres | | | | | | | | |
| Anderson | 321.6 | ... | ... | ... | ... | 73.4 | 62.1 | 28.2 | 158.0 |
| Bowie | 259.9 | ... | 47.2 | 5.9 | ... | 35.4 | 41.3 | 11.8 | 118.1 |
| Cass | 440.3 | ... | 18.9 | ... | ... | 94.4 | 44.0 | 12.6 | 270.5 |
| Cherokee | 394.8 | ... | ... | 6.1 | 6.1 | 127.5 | 36.4 | ... | 218.7 |
| Harrison | 389.1 | ... | ... | ... | ... | 29.0 | 58.1 | 29.0 | 273.0 |
| Henderson | 162.6 | ... | ... | ... | ... | ... | 93.8 | ... | 68.8 |
| Marion | 200.4 | ... | ... | ... | ... | 30.4 | 12.1 | 24.3 | 133.6 |
| Morris | 65.5 | ... | ... | ... | ... | ... | 6.5 | 13.1 | 45.8 |
| Nacogdoches | 412.8 | 17.9 | 6.0 | ... | ... | 137.6 | 29.9 | ... | 221.3 |
| Panola | 317.2 | ... | ... | ... | ... | 79.3 | 5.7 | 5.7 | 226.6 |
| Red River | 279.0 | ... | ... | ... | ... | 49.6 | 99.2 | 43.4 | 86.8 |
| Rusk | 294.0 | ... | ... | ... | ... | 22.6 | 45.2 | 22.6 | 203.5 |
| Shelby | 349.4 | 61.7 | ... | ... | ... | 54.8 | 27.4 | ... | 205.5 |
| Smith | 256.2 | ... | ... | 6.2 | ... | ... | 93.7 | 31.2 | 125.0 |
| Titus[3] | 191.9 | ... | ... | ... | ... | ... | 22.1 | 7.4 | 162.4 |
| Upshur[4] | 275.6 | ... | ... | ... | ... | 12.8 | 83.3 | 19.2 | 160.3 |
| Van Zandt | 105.3 | ... | ... | ... | ... | ... | 30.1 | ... | 75.2 |
| Wood | 183.1 | ... | ... | 11.4 | ... | ... | 51.5 | 22.9 | 97.3 |
| All counties | 4898.8 | 79.6 | 72.1 | 29.7 | 6.1 | 746.8 | 842.7 | 271.5 | 2850.4 |

[1] Includes land leased to forest industry.

[2] Indian land will be classed as corporate or individual as defined by the Bureau of Indian Affairs.

[3] Camp and Franklin included in Titus.

[4] Gregg included in Upshur.

Table 3--Area of timberland by county and forest type group, Northeast Texas, 1986

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Thousand acres | | | | | | | | |
| Anderson | 321.6 | ... | ... | ... | 62.1 | 67.7 | 95.9 | 73.4 | 22.6 |
| Bowie | 259.9 | ... | ... | 5.9 | 35.4 | 65.0 | 82.7 | 59.1 | 11.8 |
| Cass | 440.3 | 6.3 | ... | 18.9 | 56.6 | 119.5 | 176.1 | 62.9 | ... |
| Cherokee | 394.8 | ... | ... | 24.3 | 85.0 | 121.5 | 151.8 | 12.1 | ... |
| Harrison | 389.1 | ... | ... | 23.2 | 92.9 | 92.9 | 122.0 | 58.1 | ... |
| Henderson | 162.6 | ... | ... | ... | 12.5 | 18.8 | 118.8 | 12.5 | ... |
| Marion | 200.4 | ... | 6.1 | 6.1 | 42.5 | 54.7 | 60.7 | 30.4 | ... |
| Morris | 65.5 | ... | ... | ... | 13.1 | 13.1 | 19.6 | 19.6 | ... |
| Nacogdoches | 412.8 | 6.0 | ... | 35.9 | 113.7 | 95.7 | 137.6 | 23.9 | ... |
| Panola | 317.2 | ... | ... | 45.3 | 56.6 | 96.3 | 51.0 | 62.3 | 5.7 |
| Red River | 279.0 | ... | ... | 12.4 | 31.0 | 24.8 | 117.8 | 93.0 | ... |
| Rusk | 294.0 | ... | ... | ... | 90.5 | 67.8 | 135.7 | ... | ... |
| Shelby | 349.4 | ... | ... | 27.4 | 109.6 | 48.0 | 130.2 | 34.3 | ... |
| Smith | 256.2 | 6.2 | ... | 12.5 | 43.7 | 12.5 | 156.2 | 18.7 | 6.2 |
| Titus[1] | 191.9 | ... | ... | ... | 22.1 | 14.8 | 110.7 | 44.3 | ... |
| Upshur[2] | 275.6 | ... | ... | 12.8 | 64.1 | 76.9 | 64.1 | 51.3 | 6.4 |
| Van Zandt | 105.3 | ... | ... | ... | ... | 15.0 | 82.7 | 7.5 | ... |
| Wood | 183.1 | ... | ... | ... | 34.3 | 63.0 | 57.2 | 28.6 | ... |
| All counties | 4898.8 | 18.5 | 6.1 | 224.7 | 965.9 | 1067.9 | 1871.0 | 692.0 | 52.7 |

[1] Camp and Franklin included in Titus.

[2] Gregg included in Upshur.

Table 4--Area of timberland by county and stand-size class, Northeast Texas, 1986

| County | All classes | Stand-size class | | | Nonstocked[1] areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | Thousand acres | | | | |
| Anderson | 321.6 | 197.5 | 73.4 | 33.9 | 16.9 |
| Bowie | 259.9 | 94.5 | 94.5 | 59.1 | 11.8 |
| Cass | 440.3 | 201.3 | 100.6 | 125.8 | 12.6 |
| Cherokee | 394.8 | 182.2 | 109.3 | 103.3 | ... |
| Harrison | 389.1 | 145.2 | 156.8 | 81.3 | 5.8 |
| Henderson | 162.6 | 56.3 | 50.0 | 31.3 | 25.0 |
| Marion | 200.4 | 103.2 | 60.7 | 36.4 | ... |
| Morris | 65.5 | 26.2 | 26.2 | 13.1 | ... |
| Nacogdoches | 412.8 | 203.4 | 119.6 | 89.7 | ... |
| Panola | 317.2 | 152.9 | 79.3 | 85.0 | ... |
| Red River | 279.0 | 136.4 | 93.0 | 49.6 | ... |
| Rusk | 294.0 | 135.7 | 67.8 | 75.4 | 15.1 |
| Shelby | 349.4 | 178.1 | 89.1 | 82.2 | ... |
| Smith[2] | 256.2 | 68.7 | 106.2 | 68.7 | 12.5 |
| Titus[2] | 191.9 | 73.8 | 73.8 | 44.3 | ... |
| Upshur[3] | 275.6 | 109.0 | 76.9 | 89.7 | ... |
| Van Zandt | 105.3 | 37.6 | 45.1 | 22.6 | ... |
| Wood | 183.1 | 63.0 | 63.0 | 40.1 | 17.2 |
| All counties | 4898.8 | 2165.0 | 1485.5 | 1131.4 | 116.9 |

[1] Timberland less than 16.7 percent stocked.

[2] Camp and Franklin included in Titus.

[3] Gregg included in Upshur.

Table 5--Area of timberland by county and site class, Northeast Texas, 1986

| County | All classes | Site class (cubic feet/acre/year) | | | | |
|---|---|---|---|---|---|---|
| | | > 165 | 120-165 | 85-120 | 50-85 | < 50 |
| | Thousand acres | | | | | |
| Anderson | 321.6 | 28.2 | 90.3 | 73.4 | 101.6 | 28.2 |
| Bowie | 259.9 | 41.3 | 76.8 | 82.7 | 53.2 | 5.9 |
| Cass | 440.3 | 37.7 | 88.1 | 201.3 | 113.2 | ... |
| Cherokee | 394.8 | 66.8 | 151.8 | 145.8 | 18.2 | 12.1 |
| Harrison | 389.1 | 11.6 | 98.7 | 156.8 | 116.2 | 5.8 |
| Henderson | 162.6 | 6.3 | ... | 25.0 | 56.3 | 75.0 |
| Marion | 200.4 | 12.1 | 115.4 | 54.7 | 18.2 | ... |
| Morris | 65.5 | 6.5 | 13.1 | 26.2 | 13.1 | 6.5 |
| Nacogdoches | 412.8 | 65.8 | 155.5 | 149.6 | 41.9 | ... |
| Panola | 317.2 | 68.0 | 62.3 | 118.9 | 68.0 | ... |
| Red River | 279.0 | 6.2 | 43.4 | 68.2 | 130.2 | 31.0 |
| Rusk | 294.0 | 60.3 | 98.0 | 60.3 | 67.8 | 7.5 |
| Shelby | 349.4 | 48.0 | 143.9 | 123.3 | 34.3 | ... |
| Smith | 256.2 | 12.5 | 18.7 | 118.7 | 81.2 | 25.0 |
| Titus[1] | 191.9 | 36.9 | 36.9 | 51.7 | 66.4 | ... |
| Upshur[2] | 275.6 | 44.9 | 96.2 | 121.8 | 12.8 | ... |
| Van Zandt | 105.3 | ... | ... | 15.0 | 52.7 | 37.6 |
| Wood | 183.1 | 11.4 | 22.9 | 85.9 | 63.0 | ... |
| All counties | 4898.8 | 564.6 | 1312.0 | 1679.2 | 1108.2 | 234.8 |

[1] Camp and Franklin included in Titus.

[2] Gregg included in Upshur.

Table 6--Area of timberland, by county and stocking classes of growing-stock trees, Northeast Texas, 1986

| County | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | > 130 | 100-130 | 60-100 | 16.7-60 | < 16.7 |
| | Thousand acres | | | | | |
| Anderson | 321.6 | 5.6 | 16.9 | 95.9 | 186.2 | 16.9 |
| Bowie | 259.9 | 5.9 | 35.4 | 106.3 | 100.4 | 11.8 |
| Cass | 440.3 | 6.3 | 100.6 | 251.6 | 69.2 | 12.6 |
| Cherokee | 394.8 | 6.1 | 48.6 | 261.2 | 79.0 | ... |
| Harrison | 389.1 | 5.8 | 87.1 | 238.1 | 52.3 | 5.8 |
| Henderson | 162.6 | ... | 6.3 | 31.3 | 100.1 | 25.0 |
| Marion | 200.4 | 6.1 | 30.4 | 121.5 | 42.5 | ... |
| Morris | 65.5 | ... | 19.6 | 39.3 | 6.5 | ... |
| Nacogdoches | 412.8 | 17.9 | 89.7 | 215.4 | 89.7 | ... |
| Panola | 317.2 | ... | 73.6 | 192.6 | 51.0 | ... |
| Red River | 279.0 | 6.2 | 24.8 | 117.8 | 130.2 | ... |
| Rusk | 294.0 | ... | 30.2 | 165.8 | 82.9 | 15.1 |
| Shelby | 349.4 | 20.6 | 75.4 | 157.6 | 95.9 | ... |
| Smith | 256.2 | 6.2 | 18.7 | 93.7 | 125.0 | 12.5 |
| Titus[1] | 191.9 | ... | 22.1 | 73.8 | 96.0 | ... |
| Upshur[2] | 275.6 | 6.4 | 38.5 | 179.5 | 51.3 | ... |
| Van Zandt | 105.3 | ... | ... | 45.1 | 60.2 | ... |
| Wood | 183.1 | ... | 22.9 | 74.4 | 68.7 | 17.2 |
| All counties | 4898.8 | 93.2 | 740.9 | 2460.9 | 1487.0 | 116.9 |

[1] Camp and Franklin included in Titus.

[2] Gregg included in Upshur.

Table 7--Area of timberland by forest type and ownership class, Northeast Texas, 1986

| Forest type[1] | All ownerships | National forest | Other public | Forest industry | Forest industry-leased | Other private |
|---|---|---|---|---|---|---|
| | Thousand acres | | | | | |
| Longleaf-slash pine | 24.6 | ... | ... | ... | ... | 24.6 |
| Loblolly-shortleaf pine | 1190.6 | 47.1 | 17.7 | 254.4 | ... | 871.4 |
| Softwood total | 1215.2 | 47.1 | 17.7 | 254.4 | ... | 896.0 |
| Oak-pine | 1067.9 | 12.8 | 24.4 | 206.7 | ... | 824.0 |
| Oak-hickory | 1871.0 | 19.7 | 47.6 | 191.4 | ... | 1612.3 |
| Oak-gum-cypress | 692.0 | ... | 12.2 | 94.3 | ... | 585.5 |
| Elm-ash-cottonwood | 52.7 | ... | 5.9 | ... | ... | 46.8 |
| Hardwood total | 3683.6 | 32.5 | 90.1 | 492.4 | ... | 3068.6 |
| All types | 4898.8 | 79.6 | 107.8 | 746.8 | ... | 3964.5 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

Table 8--Area of timberland, by ownership and stocking classes of growing-stock trees, Northeast Texas, 1986

| Ownership class | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | > 130 | 100-130 | 60-100 | 16.7-60 | < 16.7 |
| | Thousand acres | | | | | |
| National forest | 79.6 | 13.7 | ... | 53.1 | 12.8 | ... |
| Other public | 107.8 | ... | 29.9 | 48.4 | 23.9 | 5.7 |
| Forest industry | 746.8 | 24.2 | 171.5 | 394.2 | 151.0 | 5.9 |
| Forest industry-leased | ... | ... | ... | ... | ... | ... |
| Other private | 3964.5 | 55.2 | 539.5 | 1965.3 | 1299.2 | 105.3 |
| All ownerships | 4898.8 | 93.2 | 740.9 | 2460.9 | 1487.0 | 116.9 |

Table 9--Area of timberland by forest type and stand-size class, Northeast Texas, 1986

| Forest type[1] | All classes | Stand-size class | | | Nonstocked areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | Thousand acres | | | | |
| Longleaf-slash pine | 24.6 | 18.5 | ... | 6.1 | ... |
| Loblolly-shortleaf pine | 1190.6 | 735.1 | 248.3 | 207.2 | ... |
| Softwood total | 1215.2 | 753.6 | 248.3 | 213.3 | ... |
| Oak-pine | 1067.9 | 532.2 | 209.4 | 320.5 | 5.9 |
| Oak-hickory | 1871.0 | 509.7 | 734.9 | 539.4 | 86.9 |
| Oak-gum-cypress | 692.0 | 334.4 | 287.2 | 52.5 | 17.8 |
| Elm-ash-cottonwood | 52.7 | 35.1 | 5.6 | 5.7 | 6.2 |
| Hardwood total | 3683.6 | 1411.5 | 1237.2 | 918.1 | 116.9 |
| All types | 4898.8 | 2165.0 | 1485.5 | 1131.4 | 116.9 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood type.

Table 10--Number of live trees on timberland by species and diameter class, Northeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| Longleaf-slash pines | 21530 | 17028 | 1694 | 287 | 804 | 582 | 563 | 355 | 175 | ... | 33 | 8 | ... |
| Shortleaf-loblolly pine | 672755 | 305740 | 149454 | 79525 | 50456 | 31228 | 24342 | 15376 | 8108 | 4505 | 2102 | 1751 | 168 |
| Cypress | 6041 | 2130 | 532 | 1062 | 849 | 487 | 353 | 219 | 180 | 73 | 50 | 105 | ... |
| Other softwoods | 31207 | 19414 | 7594 | 2479 | 994 | 467 | 119 | 87 | 20 | 13 | 12 | 9 | ... |
| Total softwoods | 731532 | 344311 | 159275 | 83353 | 53103 | 32764 | 25378 | 16037 | 8483 | 4591 | 2197 | 1873 | 168 |
| Select white oaks | 54930 | 32181 | 10715 | 3625 | 3339 | 1555 | 1127 | 639 | 699 | 425 | 320 | 282 | 23 |
| Select red oaks | 27416 | 17985 | 2332 | 2157 | 1321 | 1234 | 695 | 600 | 323 | 257 | 158 | 280 | 73 |
| Other white oaks | 221251 | 119705 | 35908 | 24380 | 15158 | 9784 | 6651 | 3478 | 2679 | 1423 | 965 | 1005 | 117 |
| Other red oaks | 248689 | 130333 | 46300 | 21379 | 16421 | 12053 | 7737 | 5275 | 3581 | 1967 | 1241 | 2036 | 365 |
| Hickory | 124307 | 82798 | 18287 | 9263 | 5216 | 4024 | 2215 | 1347 | 580 | 318 | 187 | 63 | 10 |
| Hard maple | 6749 | 4881 | 1256 | 194 | 135 | 132 | 93 | 23 | 28 | ... | ... | 7 | ... |
| Soft maple | 54847 | 31157 | 15246 | 4813 | 2052 | 826 | 310 | 265 | 49 | 66 | 20 | 42 | ... |
| Beech | 1030 | 548 | ... | 274 | 86 | 35 | ... | 22 | ... | 15 | 10 | 39 | ... |
| Sweetgum | 472747 | 300198 | 84994 | 40870 | 21584 | 13178 | 5568 | 3456 | 1266 | 788 | 450 | 371 | 23 |
| Tupelo-blackgum | 58258 | 39004 | 7468 | 4538 | 2889 | 1624 | 1268 | 574 | 390 | 240 | 57 | 176 | 31 |
| Ash | 92593 | 69605 | 11125 | 4021 | 2801 | 1817 | 1457 | 849 | 439 | 274 | 101 | 94 | 11 |
| Cottonwood-aspen | 944 | ... | ... | ... | 114 | 242 | 223 | 62 | 96 | 118 | 51 | 12 | 26 |
| Basswood | 1713 | 1597 | ... | ... | ... | 38 | ... | ... | 16 | 36 | 20 | 6 | ... |
| Black walnut | 512 | ... | ... | ... | 242 | 135 | 92 | 24 | ... | ... | 10 | 9 | ... |
| Other hardwoods | 591026 | 428485 | 105193 | 28620 | 13967 | 6423 | 3677 | 2244 | 1348 | 506 | 244 | 299 | 19 |
| Total hardwoods | 1957012 | 1258479 | 338825 | 144135 | 85325 | 53100 | 31113 | 18857 | 11493 | 6432 | 3833 | 4721 | 699 |
| Noncommercial | 307314 | 218076 | 60719 | 17327 | 4956 | 2772 | 1790 | 766 | 457 | 362 | 42 | 47 | ... |
| All species | 2995858 | 1820865 | 558820 | 244815 | 143384 | 88636 | 58282 | 35659 | 20433 | 11385 | 6072 | 6641 | 867 |

Table 11--Number of growing-stock trees on timberland by species and diameter class, Northeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| Longleaf-slash pines | 20396 | 15931 | 1694 | 287 | 804 | 545 | 563 | 355 | 175 | ... | 33 | 8 | ... |
| Shortleaf-loblolly pine | 498246 | 184628 | 108512 | 72203 | 48183 | 29939 | 23695 | 15021 | 7965 | 4413 | 2009 | 1564 | 114 |
| Cypress | 3540 | 532 | ... | 930 | 785 | 449 | 327 | 199 | 148 | 37 | 50 | 82 | ... |
| Other softwoods | 25108 | 15455 | 6344 | 1987 | 766 | 341 | 119 | 63 | 20 | 13 | ... | ... | ... |
| Total softwoods | 547289 | 216546 | 116551 | 75406 | 50538 | 31274 | 24704 | 15639 | 8309 | 4462 | 2092 | 1653 | 114 |
| Select white oaks | 33184 | 16028 | 6350 | 3370 | 3065 | 1440 | 1036 | 556 | 574 | 345 | 263 | 142 | 15 |
| Select red oaks | 11951 | 5176 | 1225 | 1594 | 1173 | 1104 | 536 | 471 | 235 | 174 | 91 | 141 | 31 |
| Other white oaks | 91122 | 28519 | 19519 | 15371 | 10774 | 7000 | 4282 | 2397 | 1611 | 809 | 512 | 319 | 9 |
| Other red oaks | 133865 | 49609 | 28463 | 16813 | 13850 | 9790 | 5560 | 4034 | 2624 | 1287 | 778 | 957 | 98 |
| Hickory | 42980 | 16487 | 11963 | 5190 | 3318 | 3036 | 1486 | 913 | 301 | 163 | 76 | 40 | 6 |
| Hard maple | 2346 | 2183 | ... | 105 | ... | 44 | ... | ... | 14 | ... | ... | ... | ... |
| Soft maple | 13151 | 3403 | 5138 | 3216 | 762 | 452 | 69 | 111 | ... | ... | ... | ... | ... |
| Beech | 771 | 548 | ... | 122 | 86 | ... | ... | ... | ... | 15 | ... | ... | ... |
| Sweetgum | 276495 | 153276 | 51009 | 33184 | 18571 | 11506 | 4488 | 2749 | 804 | 485 | 277 | 136 | 11 |
| Tupelo-blackgum | 21030 | 8760 | 3993 | 2543 | 2380 | 1445 | 923 | 447 | 304 | 142 | 10 | 83 | ... |
| Ash | 29479 | 14630 | 6735 | 2486 | 2413 | 1290 | 884 | 610 | 188 | 158 | 45 | 35 | 5 |
| Cottonwood-aspen | 917 | ... | ... | ... | 114 | 242 | 223 | 62 | 96 | 118 | 51 | 7 | 4 |
| Black walnut | 204 | ... | ... | ... | 59 | 53 | 92 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 130170 | 65702 | 31259 | 15952 | 8787 | 4100 | 1911 | 1329 | 769 | 205 | 29 | 122 | 4 |
| Total hardwoods | 787666 | 364323 | 165654 | 99947 | 65351 | 41503 | 21492 | 13678 | 7520 | 3901 | 2131 | 1982 | 184 |
| All species | 1334955 | 580869 | 282205 | 175353 | 115889 | 72777 | 46197 | 29317 | 15828 | 8363 | 4223 | 3635 | 298 |

Table 12--Volume of growing stock on timberland by species and diameter class, Northeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | | | |
| Longleaf-slash pines | 41.9 | 0.8 | 5.7 | 7.3 | 10.9 | 9.7 | 5.7 | ... | 1.5 | 0.2 | ... |
| Shortleaf-loblolly pine | 2569.9 | 162.0 | 307.4 | 390.1 | 472.7 | 434.9 | 311.3 | 216.4 | 126.3 | 128.9 | 19.8 |
| Cypress | 51.4 | 2.0 | 10.8 | 6.7 | 5.5 | 6.3 | 5.8 | 2.0 | 3.7 | 8.6 | ... |
| Other softwoods | 14.0 | 3.8 | 4.0 | 2.7 | 1.5 | 1.1 | 0.4 | 0.5 | ... | ... | ... |
| Total softwoods | 2677.3 | 168.6 | 327.9 | 406.9 | 490.5 | 452.0 | 323.2 | 219.0 | 131.5 | 137.7 | 19.8 |
| Select white oaks | 125.7 | 9.5 | 17.5 | 14.9 | 16.2 | 12.5 | 18.3 | 13.8 | 13.2 | 8.3 | 1.5 |
| Select red oaks | 69.4 | 4.7 | 6.1 | 9.5 | 9.3 | 10.1 | 7.1 | 6.1 | 4.0 | 9.2 | 3.3 |
| Other white oaks | 336.1 | 31.0 | 51.0 | 57.3 | 53.7 | 43.7 | 39.0 | 23.9 | 19.6 | 16.4 | 0.6 |
| Other red oaks | 619.0 | 39.6 | 75.3 | 95.1 | 86.1 | 90.0 | 76.4 | 49.1 | 35.8 | 61.3 | 10.2 |
| Hickory | 107.6 | 10.2 | 14.2 | 25.4 | 18.3 | 17.0 | 8.1 | 6.2 | 3.6 | 3.8 | 0.8 |
| Hard maple | 1.5 | 0.6 | ... | 0.4 | ... | ... | 0.5 | ... | ... | ... | ... |
| Soft maple | 19.4 | 8.0 | 4.2 | 4.1 | 0.7 | 2.3 | ... | ... | ... | ... | ... |
| Beech | 1.3 | 0.3 | 0.4 | ... | ... | ... | ... | 0.6 | ... | ... | ... |
| Sweetgum | 506.7 | 67.1 | 103.7 | 120.6 | 75.7 | 65.8 | 26.1 | 19.9 | 16.3 | 9.3 | 2.1 |
| Tupelo-blackgum | 77.9 | 6.8 | 12.6 | 14.5 | 15.0 | 9.8 | 7.7 | 5.5 | 0.5 | 5.3 | ... |
| Ash | 72.9 | 5.2 | 13.4 | 13.3 | 13.5 | 12.8 | 4.9 | 5.7 | 2.1 | 1.7 | 0.4 |
| Cottonwood-aspen | 32.7 | ... | 1.4 | 4.2 | 7.8 | 2.7 | 4.7 | 7.0 | 3.5 | 0.7 | 0.7 |
| Black walnut | 1.9 | ... | 0.4 | 0.4 | 1.1 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 201.5 | 33.7 | 44.4 | 33.5 | 28.5 | 25.4 | 20.7 | 6.3 | 1.1 | 7.3 | 0.6 |
| Total hardwoods | 2173.5 | 216.7 | 344.6 | 393.2 | 326.1 | 292.1 | 213.6 | 144.1 | 99.6 | 123.3 | 20.3 |
| All species | 4850.8 | 385.3 | 672.5 | 800.1 | 816.6 | 744.1 | 536.8 | 363.1 | 231.2 | 261.0 | 40.1 |

Table 13--Volume of growing stock in the saw-log portion of sawtimber[1] trees on timberland by species and diameter class, Northeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | |
| Longleaf-slash pines | 31.7 | 6.0 | 9.8 | 8.9 | 5.3 | ... | 1.4 | 0.2 | ... |
| Shortleaf-loblolly pine | 1928.2 | 322.0 | 431.8 | 408.7 | 297.3 | 207.9 | 120.1 | 121.4 | 19.0 |
| Cypress | 33.8 | 4.7 | 4.3 | 5.7 | 5.5 | 1.9 | 3.6 | 8.1 | ... |
| Other softwoods | 5.2 | 2.1 | 1.3 | 0.9 | 0.4 | 0.5 | ... | ... | ... |
| Total softwoods | 1998.9 | 334.7 | 447.2 | 424.2 | 308.4 | 210.4 | 125.2 | 129.8 | 19.0 |
| Select white oaks | 73.8 | ... | 13.2 | 10.8 | 15.9 | 12.6 | 12.1 | 7.7 | 1.5 |
| Select red oaks | 42.9 | ... | 6.8 | 8.6 | 6.4 | 5.5 | 3.6 | 8.8 | 3.3 |
| Other white oaks | 172.1 | ... | 44.6 | 39.2 | 34.5 | 21.3 | 17.7 | 14.3 | 0.6 |
| Other red oaks | 352.0 | ... | 65.4 | 77.7 | 66.5 | 43.4 | 33.2 | 56.5 | 9.2 |
| Hickory | 50.0 | ... | 15.0 | 14.7 | 7.3 | 5.4 | 3.3 | 3.5 | 0.8 |
| Hard maple | 0.4 | ... | ... | ... | 0.4 | ... | ... | ... | ... |
| Soft maple | 2.5 | ... | 0.7 | 1.7 | ... | ... | ... | ... | ... |
| Beech | 0.6 | ... | ... | ... | ... | 0.6 | ... | ... | ... |
| Sweetgum | 177.1 | ... | 52.5 | 56.3 | 24.3 | 18.1 | 15.3 | 8.6 | 2.0 |
| Tupelo-blackgum | 37.4 | ... | 11.2 | 8.3 | 7.1 | 5.3 | 0.5 | 4.9 | ... |
| Ash | 33.6 | ... | 9.8 | 10.9 | 4.2 | 4.9 | 1.9 | 1.6 | 0.4 |
| Cottonwood-aspen | 25.9 | ... | 7.4 | 2.5 | 4.5 | 6.8 | 3.4 | 0.7 | 0.7 |
| Black walnut | 1.0 | ... | 1.0 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 75.8 | ... | 22.9 | 21.8 | 17.5 | 5.5 | 1.0 | 6.6 | 0.5 |
| Total hardwoods | 1045.1 | ... | 250.5 | 252.6 | 188.7 | 129.4 | 91.8 | 113.1 | 19.1 |
| All species | 3044.0 | 334.7 | 697.7 | 676.9 | 497.1 | 339.7 | 217.0 | 242.9 | 38.1 |

[1] That part of the bole of sawtimber trees between the 1-foot stump and the saw-log top, including the portion of the forks large enough to contain a saw log.

Table 14--Volume of sawtimber on timberland by species and diameter class, Northeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million board feet | | | | | | | | |
| Longleaf-slash pines | 183.7 | 33.1 | 55.6 | 54.6 | 30.5 | ... | 8.2 | 1.7 | ... |
| Shortleaf-loblolly pine | 11636.5 | 1790.1 | 2561.2 | 2488.9 | 1835.6 | 1291.8 | 766.3 | 777.4 | 125.4 |
| Cypress | 178.5 | 15.4 | 21.0 | 32.2 | 29.9 | 11.1 | 20.4 | 48.5 | ... |
| Other softwoods | 25.7 | 9.9 | 6.2 | 4.9 | 1.7 | 2.9 | ... | ... | ... |
| Total softwoods | 12024.5 | 1848.6 | 2644.0 | 2580.6 | 1897.7 | 1305.8 | 794.8 | 827.6 | 125.4 |
| Select white oaks | 466.6 | ... | 74.8 | 64.4 | 100.7 | 85.6 | 79.5 | 50.5 | 11.2 |
| Select red oaks | 254.9 | ... | 36.3 | 47.7 | 37.6 | 33.0 | 22.9 | 57.4 | 20.0 |
| Other white oaks | 1028.2 | ... | 241.9 | 227.8 | 208.5 | 133.5 | 115.9 | 96.9 | 3.7 |
| Other red oaks | 2122.9 | ... | 354.9 | 446.7 | 403.7 | 271.4 | 213.2 | 367.2 | 65.7 |
| Hickory | 303.5 | ... | 83.7 | 87.2 | 44.7 | 34.9 | 21.2 | 25.7 | 5.9 |
| Hard maple | 2.8 | ... | ... | ... | 2.8 | ... | ... | ... | ... |
| Soft maple | 14.3 | ... | 4.4 | 9.9 | ... | ... | ... | ... | ... |
| Beech | 4.2 | ... | ... | ... | ... | 4.2 | ... | ... | ... |
| Sweetgum | 1031.4 | ... | 284.9 | 326.3 | 143.8 | 112.4 | 97.5 | 55.0 | 11.4 |
| Tupelo-blackgum | 217.7 | ... | 59.9 | 46.7 | 43.9 | 32.0 | 2.8 | 32.3 | ... |
| Ash | 193.0 | ... | 53.3 | 63.5 | 23.7 | 27.9 | 12.3 | 9.8 | 2.5 |
| Cottonwood-aspen | 175.1 | ... | 56.7 | 17.9 | 29.7 | 43.0 | 19.9 | 3.7 | 4.1 |
| Black walnut | 5.5 | ... | 5.5 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 451.0 | ... | 130.0 | 127.5 | 107.4 | 34.7 | 6.5 | 41.5 | 3.4 |
| Total hardwoods | 6271.0 | ... | 1386.2 | 1465.6 | 1146.7 | 812.6 | 591.7 | 740.1 | 128.1 |
| All species | 18295.4 | 1848.6 | 4030.2 | 4046.1 | 3044.4 | 2118.5 | 1386.5 | 1567.7 | 253.5 |

Table 15--Volume of growing stock and sawtimber on timberland by county and species group, Northeast Texas, 1986

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Anderson | 266.3 | ... | 136.0 | 1.7 | 55.3 | 73.2 | 1043.5 | ... | 580.1 | 2.9 | 192.1 | 268.4 |
| Bowie | 266.0 | 0.4 | 99.4 | ... | 69.4 | 96.8 | 1009.4 | 1.3 | 454.8 | ... | 249.0 | 304.3 |
| Cass | 440.7 | 18.5 | 160.9 | 3.9 | 98.1 | 159.2 | 1657.4 | 50.7 | 770.7 | 8.1 | 239.8 | 588.1 |
| Cherokee | 425.2 | 14.9 | 223.2 | 0.7 | 80.5 | 105.9 | 1657.0 | 53.7 | 1106.4 | 3.4 | 144.7 | 348.8 |
| Harrison | 388.2 | 8.6 | 205.6 | 11.1 | 74.8 | 88.1 | 1247.5 | 21.9 | 820.5 | 8.7 | 140.5 | 255.9 |
| Henderson | 72.7 | 0.2 | 26.4 | 1.0 | 7.2 | 37.9 | 234.8 | ... | 106.4 | 1.3 | 11.8 | 115.3 |
| Marion | 226.2 | 1.7 | 116.2 | 19.4 | 34.9 | 54.2 | 770.3 | 3.6 | 512.3 | 56.9 | 65.5 | 132.0 |
| Morris | 54.3 | ... | 23.2 | ... | 12.7 | 18.4 | 179.3 | ... | 83.4 | ... | 47.7 | 48.2 |
| Nacogdoches | 536.6 | 22.8 | 335.7 | 0.4 | 83.0 | 94.7 | 2169.6 | 46.3 | 1618.6 | 1.5 | 168.8 | 334.3 |
| Panola | 384.9 | 34.8 | 198.6 | 19.0 | 43.3 | 89.3 | 1583.5 | 63.9 | 1002.9 | 100.9 | 83.6 | 332.2 |
| Red River | 242.3 | 15.1 | 83.6 | 0.9 | 21.7 | 121.1 | 810.9 | 64.5 | 339.0 | 2.6 | 59.8 | 345.0 |
| Rusk | 345.2 | ... | 224.4 | 1.7 | 40.2 | 78.9 | 1345.9 | ... | 1050.2 | 2.2 | 82.3 | 211.2 |
| Shelby | 453.4 | 32.7 | 275.4 | 2.1 | 46.1 | 97.1 | 1978.4 | 118.8 | 1415.4 | 10.3 | 67.2 | 366.6 |
| Smith[3] | 181.0 | 22.4 | 69.3 | 0.3 | 37.5 | 51.4 | 606.1 | 80.1 | 272.5 | ... | 79.1 | 174.4 |
| Titus[3] | 119.3 | ... | 39.6 | 1.1 | 23.4 | 55.2 | 385.0 | ... | 159.8 | 2.0 | 48.8 | 174.5 |
| Upshur[4] | 254.4 | 15.6 | 126.3 | ... | 51.7 | 60.7 | 972.6 | 70.3 | 593.6 | ... | 94.2 | 214.5 |
| Van Zandt | 60.8 | ... | 5.2 | 2.1 | 11.3 | 42.2 | 176.0 | ... | 26.1 | 3.6 | 29.2 | 117.1 |
| Wood | 133.3 | 0.5 | 74.7 | ... | 18.0 | 40.1 | 468.2 | ... | 332.5 | ... | 43.0 | 92.7 |
| All counties | 4850.8 | 188.2 | 2423.6 | 65.5 | 809.1 | 1364.4 | 18295.4 | 575.0 | 11245.2 | 204.3 | 1847.2 | 4423.8 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Camp and Franklin included in Titus.

[4] Gregg included in Upshur.

Table 16--Volume of timber on timberland by class of timber and species group, Northeast Texas, 1986

| Class of timber | All species | Softwood | | | Hardwood | |
|---|---|---|---|---|---|---|
| | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | |
| | Million cubic feet | | | | | |
| Sawtimber trees: | | | | | | |
| Saw-log portion | 3044.0 | 99.1 | 1860.8 | 39.0 | 311.6 | 733.5 |
| Upper-stem portion | 355.7 | 11.4 | 164.6 | 5.9 | 59.4 | 114.5 |
| Total | 3399.8 | 110.5 | 2025.4 | 44.9 | 371.0 | 848.0 |
| Poletimber trees | 1451.0 | 77.7 | 398.3 | 20.5 | 438.2 | 516.3 |
| All growing-stock trees | 4850.8 | 188.2 | 2423.6 | 65.5 | 809.1 | 1364.4 |
| Rough trees: | | | | | | |
| Sawtimber size | 409.0 | 4.6 | 38.0 | 4.2 | 89.8 | 272.4 |
| Poletimber size | 274.9 | 2.8 | 21.1 | 1.8 | 79.9 | 169.3 |
| Total | 683.8 | 7.4 | 59.1 | 5.9 | 169.6 | 441.7 |
| Rotten trees: | | | | | | |
| Sawtimber size | 133.8 | ... | 3.7 | 2.1 | 34.8 | 93.2 |
| Poletimber size | 10.5 | ... | ... | 0.1 | 4.8 | 5.6 |
| Total | 144.3 | ... | 3.7 | 2.1 | 39.6 | 98.9 |
| Salvable dead trees: | | | | | | |
| Sawtimber size | 24.1 | 0.3 | 10.7 | 3.0 | 4.4 | 5.7 |
| Poletimber size | 17.8 | 0.3 | 8.8 | 0.7 | 4.3 | 3.7 |
| Total | 41.9 | 0.7 | 19.5 | 3.7 | 8.7 | 9.4 |
| All classes | 5720.8 | 196.2 | 2506.0 | 77.2 | 1027.1 | 1914.3 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 17--Volume of live trees and growing stock on timberland by ownership class and species group, Northeast Texas, 1986

| Ownership class | Live trees | | | | | | Growing stock | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | | | | | | |
| National forest | 180.3 | 0.9 | 135.0 | ... | 9.5 | 34.9 | 169.6 | 0.9 | 135.0 | ... | 8.0 | 25.6 |
| Other public | 160.2 | 0.8 | 72.3 | 0.2 | 25.1 | 61.8 | 145.7 | 0.8 | 71.1 | ... | 20.7 | 53.1 |
| Forest industry | 872.5 | 64.6 | 402.9 | 22.0 | 120.7 | 262.3 | 762.4 | 62.6 | 393.3 | 19.4 | 99.1 | 187.9 |
| Forest industry-leased | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other private | 4465.8 | 129.3 | 1876.3 | 51.3 | 863.0 | 1546.0 | 3773.1 | 123.9 | 1824.2 | 46.0 | 681.3 | 1097.7 |
| All ownerships | 5678.9 | 195.6 | 2486.5 | 73.5 | 1018.4 | 1905.0 | 4850.8 | 188.2 | 2423.6 | 65.5 | 809.1 | 1364.4 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 18--Average net annual growth of growing stock and sawtimber on timberland by county and species group, Northeast Texas, 1986

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Anderson | 10.5 | 0.1 | 7.8 | 0.1 | 1.2 | 1.3 | 54.1 | ... | 38.6 | 0.3 | 7.8 | 7.3 |
| Bowie | 15.1 | ... | 6.8 | ... | 4.0 | 4.3 | 64.9 | 0.2 | 30.0 | ... | 19.5 | 15.2 |
| Cass | 27.6 | 2.9 | 12.3 | 0.2 | 4.5 | 8.1 | 120.3 | 10.0 | 66.4 | 0.8 | 10.3 | 34.4 |
| Cherokee | 22.3 | 2.4 | 14.1 | ... | 2.3 | 3.5 | 118.9 | 9.7 | 82.7 | 0.1 | 7.1 | 19.3 |
| Harrison | 25.0 | 0.9 | 17.3 | 0.4 | 2.5 | 3.9 | 97.6 | 4.5 | 76.5 | 0.7 | 5.1 | 10.8 |
| Henderson | 3.3 | 0.8 | 0.9 | 0.1 | 0.2 | 1.2 | 13.3 | 3.6 | 4.6 | 0.1 | 0.2 | 4.9 |
| Marion | 15.6 | 0.6 | 9.9 | 1.0 | 1.8 | 2.3 | 59.6 | 1.8 | 48.5 | 2.6 | 2.7 | 4.0 |
| Morris | 3.2 | ... | 2.1 | ... | 0.4 | 0.7 | 12.6 | ... | 9.9 | ... | 0.1 | 2.6 |
| Nacogdoches | 29.4 | 2.8 | 18.6 | ... | 3.4 | 4.5 | 140.4 | 6.1 | 103.5 | 0.2 | 10.1 | 20.6 |
| Panola | 18.8 | 3.7 | 8.8 | 0.3 | 2.4 | 3.6 | 85.1 | 9.1 | 51.2 | 2.8 | 5.1 | 16.9 |
| Red River | 11.3 | 2.1 | 4.4 | 0.1 | 0.4 | 4.3 | 48.3 | 7.8 | 22.3 | 0.3 | 1.4 | 16.5 |
| Rusk | 19.6 | ... | 13.2 | 0.1 | 2.2 | 4.1 | 95.8 | ... | 74.4 | 0.2 | 5.4 | 15.7 |
| Shelby | 24.0 | 1.9 | 18.1 | 0.2 | 0.7 | 3.1 | 139.1 | 10.9 | 108.7 | 1.2 | 3.2 | 15.1 |
| Smith[3] | 11.7 | 1.5 | 7.3 | ... | 0.6 | 2.3 | 48.1 | 7.5 | 30.5 | ... | 2.2 | 7.9 |
| Titus[3] | 6.9 | ... | 3.9 | ... | 0.6 | 2.5 | 31.3 | ... | 18.4 | ... | 3.4 | 9.5 |
| Upshur[4] | 16.6 | 1.5 | 10.8 | ... | 2.6 | 1.6 | 77.2 | 8.4 | 57.0 | ... | 3.3 | 8.5 |
| Van Zandt | 2.3 | ... | 0.3 | 0.1 | 0.2 | 1.7 | 7.9 | ... | 2.1 | ... | ... | 5.8 |
| Wood | 5.9 | 0.1 | 3.1 | ... | 0.6 | 2.0 | 26.3 | ... | 17.8 | ... | 2.5 | 6.0 |
| All counties | 269.1 | 21.3 | 159.7 | 2.2 | 30.7 | 55.1 | 1240.9 | 79.5 | 843.1 | 7.7 | 89.5 | 221.0 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Camp and Franklin included in Titus.

[4] Gregg included in Upshur.

Table 19--Average annual removals of growing stock and sawtimber by county and species group, Northeast Texas, 1986

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Anderson | 6.5 | 0.7 | 3.3 | ... | 0.5 | 2.0 | 25.7 | 2.5 | 15.3 | ... | 1.6 | 6.3 |
| Bowie | 13.0 | 0.6 | 7.7 | ... | 0.9 | 3.9 | 47.7 | 2.8 | 27.6 | ... | 3.3 | 13.9 |
| Cass | 24.0 | 5.2 | 10.1 | 0.1 | 3.4 | 5.2 | 71.5 | 13.1 | 37.0 | 0.3 | 7.3 | 13.8 |
| Cherokee | 18.1 | 6.2 | 8.3 | ... | 1.5 | 2.2 | 71.3 | 23.6 | 40.3 | ... | 2.9 | 4.5 |
| Harrison | 25.8 | 2.6 | 16.8 | 0.1 | 2.8 | 3.5 | 82.6 | 11.9 | 54.9 | 0.6 | 4.8 | 10.3 |
| Henderson | 3.6 | 2.0 | 0.3 | ... | 0.6 | 0.7 | 12.6 | 8.1 | 0.7 | ... | 2.3 | 1.6 |
| Marion | 11.5 | 0.8 | 8.5 | ... | 0.6 | 1.6 | 42.7 | 2.5 | 35.2 | ... | 1.4 | 3.6 |
| Morris | 4.0 | ... | 3.1 | ... | 0.5 | 0.4 | 14.9 | ... | 12.1 | ... | 1.4 | 1.3 |
| Nacogdoches | 15.9 | 3.9 | 7.6 | ... | 2.3 | 2.2 | 57.8 | 16.0 | 28.7 | ... | 6.5 | 6.6 |
| Panola | 20.7 | 4.5 | 12.0 | ... | 1.9 | 2.3 | 77.1 | 13.8 | 49.7 | ... | 5.7 | 7.9 |
| Red River | 6.8 | 2.1 | 0.9 | ... | 0.1 | 3.7 | 19.0 | 2.8 | 4.0 | ... | 0.2 | 11.9 |
| Rusk | 17.5 | ... | 14.4 | ... | 0.9 | 2.2 | 62.4 | ... | 54.3 | ... | 1.3 | 6.8 |
| Shelby | 18.7 | 0.9 | 14.6 | ... | 0.9 | 2.4 | 67.6 | 2.6 | 56.6 | ... | 2.8 | 5.7 |
| Smith | 10.8 | 0.9 | 6.2 | ... | 1.4 | 2.4 | 35.8 | 2.0 | 23.1 | ... | 2.5 | 8.2 |
| Titus[3] | 9.5 | ... | 6.2 | ... | 0.8 | 2.4 | 41.1 | ... | 27.5 | 0.1 | 3.2 | 10.3 |
| Upshur[4] | 15.7 | 1.6 | 10.9 | ... | 1.7 | 1.4 | 53.1 | 3.9 | 40.0 | ... | 4.6 | 4.6 |
| Van Zandt | 0.8 | ... | ... | ... | ... | 0.8 | 1.6 | ... | ... | ... | ... | 1.6 |
| Wood | 5.2 | ... | 2.0 | ... | 0.9 | 2.3 | 21.4 | ... | 9.1 | ... | 3.4 | 8.9 |
| All counties | 228.2 | 31.9 | 132.8 | 0.3 | 21.9 | 41.4 | 806.0 | 105.7 | 516.4 | 1.0 | 55.2 | 127.6 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Camp and Franklin included in Titus.

[4] Gregg included in Upshur.

Table 20--Average net annual growth and average annual removals of growing stock on timberland, Northeast Texas, 1986

| Species | Growth | Removals |
|---|---|---|
| | Million cubic feet | |
| Yellow pines | 181.0 | 164.6 |
| Other softwoods | 2.2 | 0.3 |
| Total softwoods | 183.2 | 164.9 |
| Select white-red oaks | 10.6 | 5.9 |
| Other white-red oaks | 37.3 | 29.2 |
| Hickory | 2.6 | 4.1 |
| Hard maple | ... | 0.1 |
| Sweetgum | 22.0 | 15.8 |
| Ash-walnut-black cherry | 3.1 | 1.5 |
| Other hardwoods | 10.2 | 6.7 |
| Total hardwoods | 85.9 | 63.3 |
| All species | 269.1 | 228.2 |

Table 21--Average net annual growth and average annual removals of sawtimber on timberland, Northeast Texas, 1986

| Species | Growth | Removals |
|---|---|---|
| | Million board feet | |
| Yellow pines | 922.7 | 622.1 |
| Other softwoods | 7.7 | 1.0 |
| Total softwoods | 930.4 | 623.1 |
| Select white-red oaks | 38.2 | 20.3 |
| Other white-red oaks | 157.7 | 91.5 |
| Hickory | 10.2 | 10.7 |
| Sweetgum | 49.4 | 38.9 |
| Ash-walnut-black cherry | 12.5 | 4.8 |
| Other hardwoods | 42.4 | 16.6 |
| Total hardwoods | 310.5 | 182.8 |
| All species | 1240.9 | 806.0 |

Table 22--Average annual mortality of growing stock and sawtimber on timberland by species, Northeast Texas, 1986

| Species | Growing stock | Sawtimber |
|---|---|---|
| | Million cubic feet | Million board feet |
| Yellow pines | 12.3 | 35.6 |
| Other softwoods | 0.4 | 1.6 |
| Total softwoods | 12.7 | 37.2 |
| Select white-red oaks | 0.8 | 1.8 |
| Other white-red oaks | 6.1 | 17.0 |
| Hickory | 1.5 | 3.3 |
| Sweetgum | 3.4 | 7.2 |
| Ash-walnut-black cherry | 0.4 | 0.6 |
| Other hardwoods | 5.2 | 10.8 |
| Total hardwoods | 17.3 | 40.8 |
| All species | 30.1 | 77.9 |

Table 23--Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, Northeast Texas, 1986

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | | | | | | |
| National forest | 6.7 | 0.1 | 5.7 | ... | 0.4 | 0.6 | 3.4 | ... | 3.3 | ... | ... | 0.2 |
| Other public | 5.0 | ... | 2.6 | ... | 0.5 | 2.0 | 3.3 | ... | 1.1 | ... | 1.1 | 1.1 |
| Forest industry | 46.4 | 9.4 | 24.4 | 0.1 | 4.5 | 8.2 | 45.4 | 19.4 | 16.1 | 0.1 | 3.1 | 6.7 |
| Other private | 210.9 | 11.8 | 127.0 | 2.3 | 25.4 | 44.4 | 176.0 | 12.4 | 112.3 | 0.2 | 17.8 | 33.3 |
| All ownerships | 269.1 | 21.3 | 159.7 | 2.2 | 30.7 | 55.1 | 228.2 | 31.9 | 132.8 | 0.3 | 21.9 | 41.4 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 24--Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, Northeast Texas, 1986

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million board feet | | | | | | | | | | | |
| National forest | 53.0 | ... | 48.8 | ... | 0.6 | 3.6 | 16.2 | ... | 16.2 | ... | ... | ... |
| Other public | 23.3 | ... | 15.3 | ... | 0.3 | 7.7 | 12.2 | ... | 5.0 | ... | 3.1 | 4.0 |
| Forest industry | 219.0 | 31.1 | 132.8 | 1.6 | 15.4 | 38.2 | 167.8 | 73.0 | 69.9 | 0.6 | 8.4 | 16.0 |
| Other private | 945.5 | 48.5 | 646.3 | 6.1 | 73.2 | 171.5 | 609.8 | 32.7 | 425.3 | 0.4 | 43.7 | 107.6 |
| All ownerships | 1240.9 | 79.5 | 843.1 | 7.7 | 89.5 | 221.0 | 806.0 | 105.7 | 516.4 | 1.0 | 55.2 | 127.6 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 25--Volume of sawtimber on timberland by species and tree grade, Northeast Texas, 1986

| Species | All grades | Grade 1 | Grade 2 | Grade 3 | Grade 4 |
|---|---|---|---|---|---|
| | Million board feet | | | | |
| Yellow pines | 11820.2 | 1349.7 | 1893.4 | 8577.1 | ... |
| Cypress | 178.5 | 13.2 | 87.2 | 78.1 | ... |
| Redcedar | 25.7 | 25.7 | ... | ... | ... |
| Total softwoods | 12024.5 | 1388.6 | 1980.6 | 8655.2 | ... |
| Select white-red oaks | 721.5 | 42.4 | 112.1 | 328.1 | 238.8 |
| Other white-red oaks | 3151.1 | 124.8 | 397.8 | 1323.9 | 1304.6 |
| Hickory | 303.5 | 18.6 | 30.3 | 135.5 | 119.0 |
| Hard maple | 2.8 | ... | ... | ... | 2.8 |
| Sweetgum | 1031.4 | 37.7 | 186.5 | 437.0 | 370.2 |
| Tupelo and blackgum | 217.7 | 26.0 | 57.0 | 93.2 | 41.4 |
| Ash-walnut-black cherry | 201.7 | 27.0 | 64.6 | 105.1 | 5.0 |
| Other hardwoods | 641.4 | 64.1 | 116.6 | 309.9 | 150.8 |
| Total hardwoods | 6271.0 | 340.6 | 964.9 | 2732.8 | 2232.6 |
| All species | 18295.4 | 1729.3 | 2945.5 | 11388.0 | 2232.6 |

## SUPPLEMENTAL TABLES 26 - 35

Table 26--Volume of softwood growing stock on timberland by forest type, Northeast Texas, 1986

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Million cubic feet | | | | | | | | |
| Anderson | 137.8 | ... | ... | ... | 90.5 | 39.5 | 6.1 | 1.6 | ... |
| Bowie | 99.8 | ... | ... | ... | 62.6 | 33.3 | 2.7 | 1.2 | ... |
| Cass | 183.4 | 9.5 | ... | 3.2 | 91.5 | 50.7 | 27.4 | 1.2 | ... |
| Cherokee | 238.8 | ... | ... | 11.8 | 128.1 | 69.5 | 29.4 | ... | ... |
| Harrison | 225.3 | ... | ... | 8.6 | 139.3 | 45.0 | 17.5 | 14.9 | ... |
| Henderson | 27.6 | ... | ... | ... | 14.3 | 10.8 | 1.3 | 1.2 | ... |
| Marion | 137.2 | ... | 6.7 | 1.7 | 56.8 | 43.3 | 5.0 | 23.8 | ... |
| Morris | 23.2 | ... | ... | ... | 14.3 | 8.1 | 0.7 | ... | ... |
| Nacogdoches | 358.8 | 7.5 | ... | 14.2 | 241.4 | 73.2 | 22.6 | ... | ... |
| Panola | 252.4 | ... | ... | 33.0 | 115.7 | 70.5 | 7.9 | 23.7 | 1.6 |
| Red River | 99.5 | ... | ... | 15.1 | 60.4 | 15.8 | 7.2 | 1.1 | ... |
| Rusk | 226.1 | ... | ... | ... | 172.7 | 40.4 | 13.1 | ... | ... |
| Shelby | 310.2 | ... | ... | 32.7 | 209.6 | 37.0 | 25.1 | 5.8 | ... |
| Smith[1] | 92.0 | 15.5 | ... | 6.6 | 46.8 | 7.0 | 16.2 | ... | ... |
| Titus[1] | 40.7 | ... | ... | ... | 26.2 | 3.9 | 9.7 | 0.9 | ... |
| Upshur[2] | 142.0 | ... | ... | 14.9 | 85.9 | 30.4 | 5.9 | 4.2 | 0.8 |
| Van Zandt | 7.3 | ... | ... | ... | ... | 4.9 | 2.3 | ... | ... |
| Wood | 75.1 | ... | ... | ... | 40.0 | 31.5 | 3.6 | ... | ... |
| All counties | 2677.3 | 32.4 | 6.7 | 141.6 | 1596.0 | 614.7 | 203.7 | 79.7 | 2.4 |

[1] Camp and Franklin included in Titus.

[2] Gregg included in Upshur.

Table 27--Volume of hardwood growing stock on timberland by forest type, Northeast Texas, 1986

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Million cubic feet | | | | | | | | |
| Anderson | 128.5 | ... | ... | ... | 5.0 | 26.7 | 38.3 | 45.6 | 12.9 |
| Bowie | 166.2 | ... | ... | ... | 8.8 | 26.4 | 40.9 | 52.2 | 37.8 |
| Cass | 257.3 | ... | ... | ... | 14.9 | 51.5 | 123.1 | 67.7 | ... |
| Cherokee | 186.4 | ... | ... | 0.2 | 17.5 | 40.3 | 122.1 | 6.3 | ... |
| Harrison | 162.9 | ... | ... | 0.9 | 19.4 | 27.3 | 66.0 | 49.2 | ... |
| Henderson | 45.1 | ... | ... | ... | 0.5 | 3.6 | 31.8 | 9.2 | ... |
| Marion | 89.1 | ... | ... | 1.3 | 8.1 | 31.1 | 22.2 | 26.3 | ... |
| Morris | 31.1 | ... | ... | ... | 1.3 | 15.5 | 3.1 | 11.1 | ... |
| Nacogdoches | 177.7 | 1.8 | ... | ... | 23.7 | 45.6 | 77.2 | 29.5 | ... |
| Panola | 132.5 | ... | ... | 0.9 | 12.9 | 46.6 | 22.4 | 46.7 | 3.0 |
| Red River | 142.8 | ... | ... | 0.4 | 4.4 | 10.7 | 59.3 | 68.0 | ... |
| Rusk | 119.1 | ... | ... | ... | 13.8 | 30.6 | 74.7 | ... | ... |
| Shelby | 143.2 | ... | ... | 5.1 | 25.1 | 15.1 | 64.7 | 33.1 | ... |
| Smith[1] | 89.0 | ... | ... | 1.0 | 5.2 | 2.1 | 63.0 | 16.2 | 1.5 |
| Titus[1] | 78.6 | ... | ... | ... | 1.3 | 3.7 | 47.6 | 26.0 | ... |
| Upshur[2] | 112.4 | ... | ... | ... | 16.2 | 24.2 | 9.6 | 58.7 | 3.7 |
| Van Zandt | 53.6 | ... | ... | ... | ... | 5.5 | 43.9 | 4.2 | ... |
| Wood | 58.1 | ... | ... | ... | 0.5 | 22.8 | 24.9 | 9.9 | ... |
| All counties | 2173.5 | 1.8 | ... | 9.9 | 178.9 | 429.4 | 934.7 | 559.9 | 58.9 |

[1] Camp and Franklin included in Titus.

[2] Gregg included in Upshur.

Table 28--Volume of softwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, Northeast Texas, 1986

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Million cubic feet | | | | | | | | |
| Anderson | 98.8 | ... | ... | ... | 60.8 | 32.3 | 4.5 | 1.3 | ... |
| Bowie | 77.5 | ... | ... | ... | 51.1 | 23.5 | 2.1 | 0.8 | ... |
| Cass | 138.9 | 5.1 | ... | 0.5 | 72.6 | 37.4 | 22.3 | 1.1 | ... |
| Cherokee | 193.5 | ... | ... | 8.0 | 102.9 | 59.5 | 23.2 | ... | ... |
| Harrison | 154.2 | ... | ... | 4.2 | 105.1 | 26.9 | 12.6 | 5.4 | ... |
| Henderson | 21.0 | ... | ... | ... | 12.2 | 7.5 | 0.6 | 0.8 | ... |
| Marion | 99.0 | ... | 4.0 | 0.6 | 43.2 | 32.7 | 2.7 | 15.8 | ... |
| Morris | 14.7 | ... | ... | ... | 7.3 | 6.7 | 0.7 | ... | ... |
| Nacogdoches | 264.1 | 6.2 | ... | 0.8 | 187.5 | 56.2 | 13.4 | ... | ... |
| Panola | 194.7 | ... | ... | 11.2 | 95.0 | 60.0 | 5.2 | 21.8 | 1.6 |
| Red River | 71.7 | ... | ... | 11.5 | 43.9 | 11.9 | 3.4 | 1.0 | ... |
| Rusk | 172.9 | ... | ... | ... | 131.9 | 30.4 | 10.6 | ... | ... |
| Shelby | 236.5 | ... | ... | 19.0 | 165.7 | 29.2 | 17.9 | 4.7 | ... |
| Smith[1] | 60.3 | 12.7 | ... | 1.1 | 31.4 | 3.9 | 11.0 | ... | ... |
| Titus[1] | 28.4 | ... | ... | ... | 19.7 | 1.4 | 7.4 | ... | ... |
| Upshur[2] | 110.2 | ... | ... | 11.3 | 69.3 | 21.8 | 4.0 | 3.1 | 0.7 |
| Van Zandt | 5.4 | ... | ... | ... | ... | 3.7 | 1.7 | ... | ... |
| Wood | 57.0 | ... | ... | ... | 30.8 | 23.2 | 3.0 | ... | ... |
| All counties | 1998.9 | 24.0 | 4.0 | 68.2 | 1230.3 | 468.2 | 146.2 | 55.6 | 2.3 |

[1] Camp and Franklin included in Titus.

[2] Gregg included in Upshur.

Table 29--Volume of hardwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, Northeast Texas, 1986

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Million cubic feet | | | | | | | | |
| Anderson | 75.8 | ... | ... | ... | 2.3 | 13.4 | 22.6 | 28.4 | 9.1 |
| Bowie | 89.5 | ... | ... | ... | 4.7 | 13.7 | 15.3 | 26.2 | 29.7 |
| Cass | 136.2 | ... | ... | ... | 6.8 | 22.3 | 63.9 | 43.3 | ... |
| Cherokee | 82.3 | ... | ... | ... | 7.1 | 17.0 | 54.9 | 3.3 | ... |
| Harrison | 68.9 | ... | ... | 0.2 | 6.7 | 10.1 | 24.4 | 27.4 | ... |
| Henderson | 20.5 | ... | ... | ... | 0.4 | 0.8 | 12.7 | 6.6 | ... |
| Marion | 33.3 | ... | ... | 0.3 | 1.4 | 12.1 | 3.2 | 16.3 | ... |
| Morris | 16.7 | ... | ... | ... | ... | 10.0 | 0.3 | 6.3 | ... |
| Nacogdoches | 83.2 | 1.3 | ... | ... | 8.5 | 22.7 | 35.6 | 15.1 | ... |
| Panola | 68.7 | ... | ... | 0.3 | 3.9 | 26.3 | 10.6 | 25.3 | 2.3 |
| Red River | 68.9 | ... | ... | ... | 1.3 | 5.0 | 27.8 | 34.8 | ... |
| Rusk | 52.0 | ... | ... | ... | 5.3 | 11.1 | 35.6 | ... | ... |
| Shelby | 70.1 | ... | ... | 3.1 | 11.0 | 5.2 | 29.5 | 21.3 | ... |
| Smith[1] | 42.3 | ... | ... | 0.7 | 2.3 | 1.4 | 29.8 | 7.4 | 0.8 |
| Titus[1] | 38.5 | ... | ... | ... | 0.5 | 1.6 | 24.1 | 12.3 | ... |
| Upshur[2] | 50.4 | ... | ... | ... | 8.9 | 10.8 | 2.8 | 26.0 | 1.9 |
| Van Zandt | 24.5 | ... | ... | ... | ... | 3.4 | 20.8 | 0.3 | ... |
| Wood | 23.3 | ... | ... | ... | ... | 9.9 | 10.3 | 3.1 | ... |
| All counties | 1045.1 | 1.3 | ... | 4.5 | 71.1 | 196.8 | 424.3 | 303.5 | 43.7 |

[1] Camp and Franklin included in Titus.

[2] Gregg included in Upshur.

Table 30--Volume of timber on timberland by county, class of timber and species group, Northeast Texas, 1986

| County | All classes | Growing stock | | Rough | | Rotten | |
|---|---|---|---|---|---|---|---|
| | | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| | Million cubic feet | | | | | | |
| Anderson | 336.6 | 137.8 | 128.5 | 3.6 | 56.0 | 0.2 | 10.5 |
| Bowie | 307.7 | 99.8 | 166.2 | 2.2 | 30.4 | ... | 9.1 |
| Cass | 505.1 | 183.4 | 257.3 | 7.2 | 44.7 | ... | 12.5 |
| Cherokee | 481.9 | 238.8 | 186.4 | 2.8 | 42.1 | 0.3 | 11.4 |
| Harrison | 435.7 | 225.3 | 162.9 | 8.1 | 28.1 | 1.7 | 9.5 |
| Henderson | 128.8 | 27.6 | 45.1 | 2.1 | 53.4 | ... | 0.6 |
| Marion | 253.4 | 137.2 | 89.1 | 2.6 | 20.8 | 1.1 | 2.6 |
| Morris | 62.9 | 23.2 | 31.1 | 1.0 | 5.8 | 0.4 | 1.4 |
| Nacogdoches | 585.1 | 358.8 | 177.7 | 2.8 | 39.4 | ... | 6.4 |
| Panola | 447.0 | 252.4 | 132.5 | 15.5 | 20.6 | 0.7 | 25.4 |
| Red River | 300.3 | 99.5 | 142.8 | 1.6 | 47.6 | ... | 8.8 |
| Rusk | 385.6 | 226.1 | 119.1 | 5.2 | 31.0 | 0.4 | 3.9 |
| Shelby | 516.1 | 310.2 | 143.2 | 7.0 | 49.9 | ... | 5.8 |
| Smith[1] | 234.4 | 92.0 | 89.0 | 2.9 | 39.3 | 0.3 | 10.9 |
| Titus[1] | 152.2 | 40.7 | 78.6 | 1.2 | 21.9 | ... | 9.8 |
| Upshur[2] | 293.7 | 142.0 | 112.4 | 4.7 | 29.2 | 0.7 | 4.7 |
| Van Zandt | 92.6 | 7.3 | 53.6 | 0.6 | 30.7 | ... | 0.5 |
| Wood | 159.9 | 75.1 | 58.1 | 1.5 | 20.4 | ... | 4.7 |
| All counties | 5678.9 | 2677.3 | 2173.5 | 72.5 | 611.3 | 5.8 | 138.5 |

[1] Camp and Franklin included in Titus.

[2] Gregg included in Upshur.

Table 31--Number of live trees on timberland by detailed species and diameter class, Northeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| Slash pine | 21530 | 17028 | 1694 | 287 | 804 | 582 | 563 | 355 | 175 | ... | 33 | 8 | ... |
| Shortleaf pine | 289302 | 116190 | 71407 | 30336 | 25592 | 17620 | 13372 | 8189 | 3769 | 1868 | 669 | 280 | 9 |
| Loblolly pine | 383454 | 189551 | 78047 | 49188 | 24865 | 13608 | 10970 | 7187 | 4339 | 2637 | 1433 | 1470 | 159 |
| Redcedar | 31207 | 19414 | 7594 | 2479 | 994 | 467 | 119 | 87 | 20 | 13 | 12 | 9 | ... |
| Cypress | 6041 | 2130 | 532 | 1062 | 849 | 487 | 353 | 219 | 180 | 73 | 50 | 105 | ... |
| Total softwoods | 731533 | 344312 | 159275 | 83353 | 53104 | 32763 | 25378 | 16037 | 8483 | 4591 | 2197 | 1873 | 168 |
| Select white oaks | 54930 | 32181 | 10715 | 3625 | 3339 | 1555 | 1127 | 639 | 699 | 425 | 320 | 282 | 23 |
| Select red oaks | 27416 | 17985 | 2332 | 2157 | 1321 | 1234 | 695 | 600 | 323 | 257 | 158 | 280 | 73 |
| Other white oaks | 221251 | 119705 | 35908 | 24380 | 15158 | 9784 | 6651 | 3478 | 2679 | 1423 | 965 | 1005 | 117 |
| Other red oaks | 248689 | 130333 | 46300 | 21379 | 16421 | 12053 | 7737 | 5275 | 3581 | 1967 | 1241 | 2036 | 365 |
| Sweet pecan | 1613 | 1145 | ... | 192 | 127 | ... | 88 | 24 | 18 | 13 | ... | 7 | ... |
| Water hickory | 4040 | 1695 | 600 | 409 | 638 | 393 | 118 | 126 | 15 | 13 | 9 | 12 | 10 |
| Other hickories | 118655 | 79958 | 17686 | 8662 | 4451 | 3631 | 2009 | 1197 | 547 | 292 | 178 | 44 | ... |
| Persimmon | 28437 | 19884 | 7934 | 305 | 168 | 124 | ... | 22 | ... | ... | ... | ... | ... |
| Hard maple | 6749 | 4881 | 1256 | 194 | 135 | 132 | 93 | 23 | 28 | ... | ... | 7 | ... |
| Soft maple | 50158 | 27855 | 14714 | 4347 | 1910 | 618 | 283 | 265 | 49 | 66 | 10 | 42 | ... |
| Boxelder | 4688 | 3303 | 532 | 466 | 142 | 208 | 27 | ... | ... | ... | 10 | ... | ... |
| Beech | 1030 | 548 | ... | 274 | 86 | 35 | ... | 22 | ... | 15 | 10 | 39 | ... |
| Sweetgum | 472747 | 300198 | 84994 | 40870 | 21584 | 13178 | 5568 | 3456 | 1266 | 788 | 450 | 371 | 23 |
| Blackgum | 57701 | 38447 | 7468 | 4538 | 2889 | 1624 | 1268 | 574 | 390 | 240 | 57 | 176 | 31 |
| Other gums/tupelos | 557 | 557 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| White ash | 29987 | 23776 | 3397 | 810 | 560 | 422 | 426 | 303 | 161 | 65 | 36 | 29 | 2 |
| Other ashes | 62606 | 45829 | 7728 | 3211 | 2241 | 1395 | 1031 | 545 | 277 | 209 | 65 | 64 | 9 |
| Sycamore | 356 | ... | ... | 101 | 150 | ... | 55 | ... | 20 | ... | ... | 17 | 12 |
| Cottonwood | 944 | ... | ... | ... | 114 | 242 | 223 | 62 | 96 | 118 | 51 | 12 | 26 |
| Basswood | 1713 | 1597 | ... | ... | ... | 38 | ... | ... | 16 | 36 | 20 | 6 | ... |
| Magnolia | 150 | ... | ... | 150 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Sweetbay | 292 | ... | ... | 131 | 57 | 77 | 28 | ... | ... | ... | ... | ... | ... |
| Willow | 2783 | 1107 | 588 | 212 | 167 | 365 | 91 | 130 | 49 | 26 | ... | 41 | 8 |
| Black walnut | 512 | ... | ... | ... | 242 | 135 | 92 | 24 | ... | ... | 10 | 9 | ... |
| Black cherry | 8501 | 5689 | 1789 | 679 | 230 | 85 | 29 | ... | ... | ... | ... | ... | ... |
| American elm | 30799 | 19553 | 5695 | 2920 | 950 | 732 | 351 | 331 | 135 | 25 | 32 | 73 | ... |
| Other elms | 290396 | 218528 | 44752 | 12888 | 7108 | 3333 | 1898 | 959 | 603 | 196 | 79 | 52 | ... |
| River birch | 8517 | 3394 | 1074 | 1994 | 953 | 378 | 294 | 155 | 114 | 63 | 52 | 45 | ... |
| Hackberry | 41075 | 22850 | 9207 | 3917 | 2378 | 992 | 564 | 557 | 340 | 144 | 71 | 55 | ... |
| Other locusts | 7309 | 4636 | 1066 | 538 | 465 | 243 | 234 | 24 | 52 | 26 | 10 | 15 | ... |
| Sassafras | 57238 | 45275 | 10578 | 1066 | 213 | ... | 71 | 18 | 17 | ... | ... | ... | ... |
| Dogwood | 81081 | 65876 | 14004 | 930 | 220 | 51 | ... | ... | ... | ... | ... | ... | ... |
| Holly | 9943 | 7821 | 1125 | 929 | 68 | ... | ... | ... | ... | ... | ... | ... | ... |
| Other commercial | 24152 | 13873 | 7380 | 1860 | 841 | 43 | 63 | 49 | 17 | 26 | ... | ... | ... |
| Total hardwoods | 1957014 | 1258481 | 338825 | 144135 | 85325 | 53100 | 31113 | 18857 | 11493 | 6432 | 3833 | 4721 | 699 |
| Noncommercial | 307314 | 218076 | 60719 | 17327 | 4956 | 2772 | 1790 | 766 | 457 | 362 | 42 | 47 | ... |
| All species | 2995861 | 1820868 | 558819 | 244815 | 143384 | 88636 | 58282 | 35659 | 20433 | 11385 | 6072 | 6641 | 867 |

Table 32--Number of growing stock trees on timberland by detailed species and diameter class, Northeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | |
| Slash pine | 2771 | 287 | 804 | 545 | 563 | 355 | 175 | ... | 33 | 8 | ... |
| Shortleaf pine | 95429 | 26068 | 24549 | 17227 | 13161 | 7960 | 3721 | 1839 | 627 | 271 | 5 |
| Loblolly pine | 109676 | 46134 | 23634 | 12712 | 10533 | 7062 | 4244 | 2573 | 1382 | 1292 | 110 |
| Redcedar | 3309 | 1987 | 766 | 341 | 119 | 63 | 20 | 13 | ... | ... | ... |
| Cypress | 3007 | 930 | 785 | 449 | 327 | 199 | 148 | 37 | 50 | 82 | ... |
| Total softwoods | 214193 | 75406 | 50538 | 31274 | 24704 | 15639 | 8309 | 4462 | 2092 | 1653 | 114 |
| Select white oaks | 10806 | 3370 | 3065 | 1440 | 1036 | 556 | 574 | 345 | 263 | 142 | 15 |
| Select red oaks | 5550 | 1594 | 1173 | 1104 | 536 | 471 | 235 | 174 | 91 | 141 | 31 |
| Other white oaks | 43084 | 15371 | 10774 | 7000 | 4282 | 2397 | 1611 | 809 | 512 | 319 | 9 |
| Other red oaks | 55792 | 16813 | 13850 | 9790 | 5560 | 4034 | 2624 | 1287 | 778 | 957 | 98 |
| Sweet pecan | 195 | ... | 63 | ... | 88 | 24 | ... | 13 | ... | 7 | ... |
| Water hickory | 1279 | 409 | 340 | 354 | 92 | 38 | 15 | 13 | ... | 12 | 6 |
| Other hickories | 13056 | 4781 | 2915 | 2682 | 1307 | 851 | 286 | 137 | 76 | 21 | ... |
| Persimmon | 266 | ... | 168 | 75 | ... | 22 | ... | ... | ... | ... | ... |
| Hard maple | 162 | 105 | ... | 44 | ... | ... | 14 | ... | ... | ... | ... |
| Soft maple | 3929 | 2850 | 621 | 278 | 69 | 111 | ... | ... | ... | ... | ... |
| Boxelder | 681 | 365 | 142 | 174 | ... | ... | ... | ... | ... | ... | ... |
| Beech | 223 | 122 | 86 | ... | ... | ... | ... | 15 | ... | ... | ... |
| Sweetgum | 72210 | 33184 | 18571 | 11506 | 4488 | 2749 | 804 | 485 | 277 | 136 | 11 |
| Blackgum | 8277 | 2543 | 2380 | 1445 | 923 | 447 | 304 | 142 | 10 | 83 | ... |
| White ash | 1935 | 568 | 419 | 319 | 328 | 181 | 52 | 40 | 11 | 16 | ... |
| Other ashes | 6179 | 1918 | 1994 | 971 | 556 | 428 | 136 | 117 | 34 | 19 | 5 |
| Sycamore | 326 | 101 | 150 | ... | 55 | ... | 20 | ... | ... | ... | ... |
| Cottonwood | 917 | ... | 114 | 242 | 223 | 62 | 96 | 118 | 51 | 7 | 4 |
| Magnolia | 150 | 150 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Sweetbay | 197 | 131 | ... | 39 | 28 | ... | ... | ... | ... | ... | ... |
| Willow | 593 | 212 | 70 | 137 | 28 | 89 | 33 | 12 | ... | 7 | 4 |
| Black walnut | 204 | ... | 59 | 53 | 92 | ... | ... | ... | ... | ... | ... |
| Black cherry | 359 | 165 | 164 | ... | 29 | ... | ... | ... | ... | ... | ... |
| American elm | 3838 | 2085 | 646 | 503 | 236 | 228 | 83 | 13 | ... | 44 | ... |
| Other elms | 17082 | 7959 | 4620 | 2367 | 1019 | 686 | 310 | 102 | 9 | 10 | ... |
| River birch | 2672 | 1144 | 833 | 291 | 175 | 116 | 80 | ... | 10 | 24 | ... |
| Hackberry | 4711 | 1864 | 1584 | 603 | 227 | 171 | 174 | 65 | ... | 23 | ... |
| Other locusts | 1025 | 437 | 336 | 84 | 77 | ... | 52 | 14 | 10 | 15 | ... |
| Sassafras | 729 | 590 | 67 | ... | 37 | 18 | 17 | ... | ... | ... | ... |
| Dogwood | 111 | 111 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 684 | 684 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other commercial | 466 | 319 | 147 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total hardwoods | 257688 | 99947 | 65351 | 41503 | 21492 | 13678 | 7520 | 3901 | 2131 | 1982 | 184 |
| All species | 471881 | 175353 | 115889 | 72777 | 46197 | 29317 | 15828 | 8363 | 4223 | 3635 | 298 |

Table 33--Volume of growing stock on timberland by species and diameter class, Northeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | | | |
| Slash pine | 41.9 | 0.8 | 5.7 | 7.3 | 10.9 | 9.7 | 5.7 | ... | 1.5 | 0.2 | ... |
| Shortleaf pine | 1289.0 | 64.8 | 169.5 | 236.5 | 274.5 | 242.1 | 148.0 | 89.4 | 42.2 | 21.8 | 0.4 |
| Loblolly pine | 1280.9 | 97.2 | 137.9 | 153.7 | 198.2 | 192.8 | 163.3 | 127.1 | 84.2 | 107.1 | 19.5 |
| Redcedar | 14.0 | 3.8 | 4.0 | 2.7 | 1.5 | 1.1 | 0.4 | 0.5 | ... | ... | ... |
| Cypress | 51.4 | 2.0 | 10.8 | 6.7 | 5.5 | 6.3 | 5.8 | 2.0 | 3.7 | 8.6 | ... |
| Total softwoods | 2677.3 | 168.6 | 327.9 | 406.9 | 490.5 | 452.0 | 323.2 | 219.0 | 131.5 | 137.7 | 19.8 |
| Select white oaks | 125.7 | 9.5 | 17.5 | 14.9 | 16.2 | 12.5 | 18.3 | 13.8 | 13.2 | 8.3 | 1.5 |
| Select red oaks | 69.4 | 4.7 | 6.1 | 9.5 | 9.3 | 10.1 | 7.1 | 6.1 | 4.0 | 9.2 | 3.3 |
| Other white oaks | 336.1 | 31.0 | 51.0 | 57.3 | 53.7 | 43.7 | 39.0 | 23.9 | 19.6 | 16.4 | 0.6 |
| Other red oaks | 619.0 | 39.6 | 75.3 | 95.1 | 86.1 | 90.0 | 76.4 | 49.1 | 35.8 | 61.3 | 10.2 |
| Sweet pecan | 3.1 | ... | 0.5 | ... | 1.1 | 0.4 | ... | 0.4 | ... | 0.7 | ... |
| Water hickory | 12.0 | 1.2 | 1.9 | 3.7 | 1.2 | 0.8 | 0.5 | 0.6 | ... | 1.2 | 0.8 |
| Other hickories | 92.5 | 9.0 | 11.8 | 21.6 | 16.0 | 15.8 | 7.6 | 5.1 | 3.6 | 1.9 | ... |
| Persimmon | 1.9 | ... | 0.8 | 0.8 | ... | 0.3 | ... | ... | ... | ... | ... |
| Hard maple | 1.5 | 0.6 | ... | 0.4 | ... | ... | 0.5 | ... | ... | ... | ... |
| Soft maple | 16.0 | 6.8 | 3.5 | 2.7 | 0.7 | 2.3 | ... | ... | ... | ... | ... |
| Boxelder | 3.3 | 1.2 | 0.8 | 1.4 | ... | ... | ... | ... | ... | ... | ... |
| Beech | 1.3 | 0.3 | 0.4 | ... | ... | ... | ... | 0.6 | ... | ... | ... |
| Sweetgum | 506.7 | 67.1 | 103.7 | 120.6 | 75.7 | 65.8 | 26.1 | 19.9 | 16.3 | 9.3 | 2.1 |
| Blackgum | 77.9 | 6.8 | 12.6 | 14.5 | 15.0 | 9.8 | 7.7 | 5.5 | 0.5 | 5.3 | ... |
| White ash | 19.0 | 1.1 | 2.4 | 2.7 | 4.6 | 3.5 | 1.5 | 1.7 | 0.7 | 0.8 | ... |
| Other ashes | 54.0 | 4.2 | 11.0 | 10.6 | 8.9 | 9.3 | 3.4 | 4.0 | 1.4 | 0.9 | 0.4 |
| Sycamore | 3.2 | 0.3 | 0.8 | ... | 1.1 | ... | 1.0 | ... | ... | ... | ... |
| Cottonwood | 32.7 | ... | 1.4 | 4.2 | 7.8 | 2.7 | 4.7 | 7.0 | 3.5 | 0.7 | 0.7 |
| Magnolia | 0.4 | 0.4 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Sweetbay | 0.8 | ... | ... | 0.5 | 0.4 | ... | ... | ... | ... | ... | ... |
| Willow | 5.5 | 0.3 | 0.1 | 0.8 | 0.3 | 1.5 | 1.1 | 0.5 | ... | 0.5 | 0.6 |
| Black walnut | 1.9 | ... | 0.4 | 0.4 | 1.1 | ... | ... | ... | ... | ... | ... |
| Black cherry | 2.4 | 0.3 | 1.6 | ... | 0.5 | ... | ... | ... | ... | ... | ... |
| American elm | 25.0 | 4.4 | 3.3 | 4.1 | 3.3 | 4.7 | 2.3 | 0.5 | ... | 2.3 | ... |
| Other elms | 99.5 | 16.5 | 23.3 | 19.1 | 15.6 | 13.1 | 8.2 | 3.0 | 0.2 | 0.5 | ... |
| River birch | 18.1 | 3.1 | 4.4 | 2.7 | 2.5 | 1.9 | 1.9 | ... | 0.4 | 1.1 | ... |
| Hackberry | 31.1 | 4.1 | 7.9 | 4.6 | 2.8 | 3.7 | 4.5 | 2.0 | ... | 1.5 | ... |
| Other locusts | 8.7 | 1.3 | 1.6 | 0.8 | 1.5 | ... | 1.3 | 0.4 | 0.4 | 1.4 | ... |
| Sassafras | 2.5 | 1.1 | 0.2 | ... | 0.6 | 0.2 | 0.3 | ... | ... | ... | ... |
| Dogwood | 0.2 | 0.2 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 1.1 | 1.1 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other commercial | 0.9 | 0.6 | 0.4 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total hardwoods | 2173.5 | 216.7 | 344.6 | 393.2 | 326.1 | 292.1 | 213.6 | 144.1 | 99.6 | 123.3 | 20.3 |
| All species | 4850.8 | 385.3 | 672.5 | 800.1 | 816.6 | 744.1 | 536.8 | 363.1 | 231.2 | 261.0 | 40.1 |

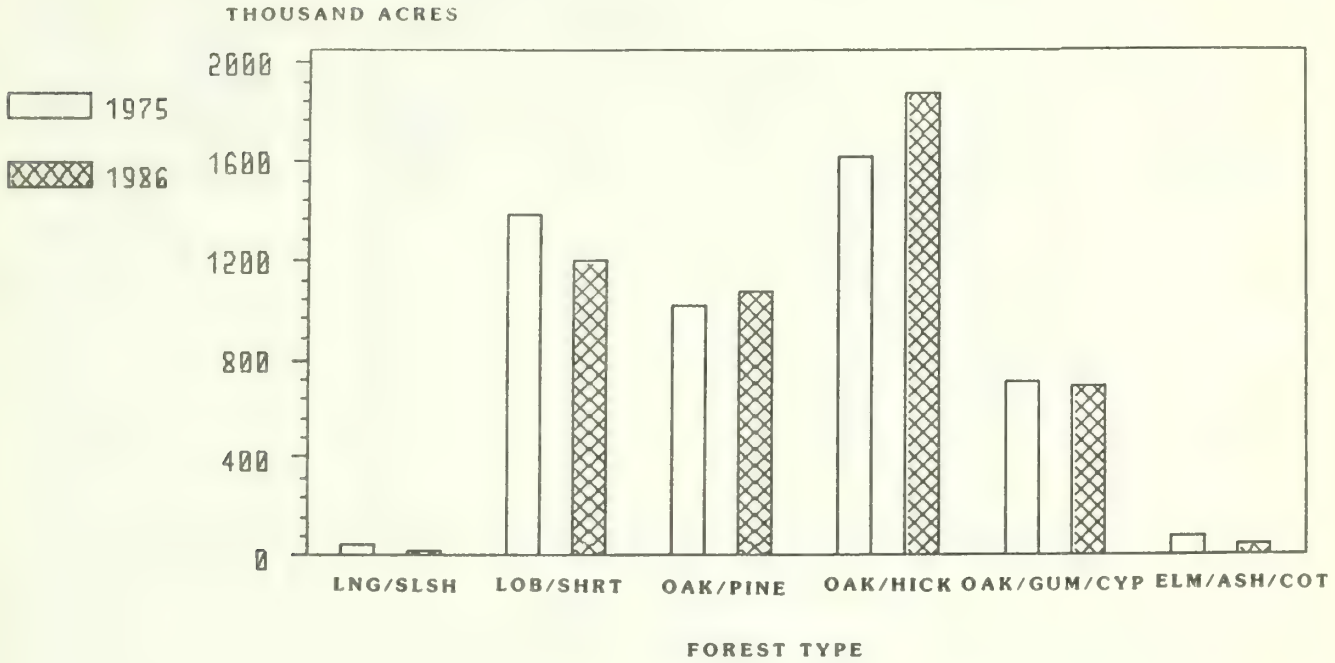
Table 34--Volume of growing stock in the saw-log portion of sawtimber trees on timberland by detailed species and diameter class, Northeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | |
| Slash pine | 31.7 | 6.0 | 9.8 | 8.9 | 5.3 | ... | 1.4 | 0.2 | ... |
| Shortleaf pine | 967.2 | 197.5 | 252.7 | 229.2 | 141.0 | 86.0 | 39.9 | 20.6 | 0.4 |
| Loblolly pine | 961.0 | 124.4 | 179.1 | 179.5 | 156.3 | 121.9 | 80.2 | 100.9 | 18.6 |
| Redcedar | 5.2 | 2.1 | 1.3 | 0.9 | 0.4 | 0.5 | ... | ... | ... |
| Cypress | 33.8 | 4.7 | 4.3 | 5.7 | 5.5 | 1.9 | 3.6 | 8.1 | ... |
| Total softwoods | 1998.9 | 334.7 | 447.2 | 424.2 | 308.4 | 210.4 | 125.2 | 129.8 | 19.0 |
| Select white oaks | 73.8 | ... | 13.2 | 10.8 | 15.9 | 12.6 | 12.1 | 7.7 | 1.5 |
| Select red oaks | 42.9 | ... | 6.8 | 8.6 | 6.4 | 5.5 | 3.6 | 8.8 | 3.3 |
| Other white oaks | 172.1 | ... | 44.6 | 39.2 | 34.5 | 21.3 | 17.7 | 14.3 | 0.6 |
| Other red oaks | 352.0 | ... | 65.4 | 77.7 | 66.5 | 43.4 | 33.2 | 56.5 | 9.2 |
| Sweet pecan | 2.2 | ... | 0.9 | 0.4 | ... | 0.4 | ... | 0.6 | ... |
| Water hickory | 4.5 | ... | 0.9 | 0.7 | 0.4 | 0.6 | ... | 1.1 | 0.8 |
| Other hickories | 43.3 | ... | 13.2 | 13.7 | 6.9 | 4.4 | 3.3 | 1.8 | ... |
| Persimmon | 0.3 | ... | ... | 0.3 | ... | ... | ... | ... | ... |
| Hard maple | 0.4 | ... | ... | ... | 0.4 | ... | ... | ... | ... |
| Soft maple | 2.5 | ... | 0.7 | 1.7 | ... | ... | ... | ... | ... |
| Beech | 0.6 | ... | ... | ... | ... | 0.6 | ... | ... | ... |
| Sweetgum | 177.1 | ... | 52.5 | 56.3 | 24.3 | 18.1 | 15.3 | 8.6 | 2.0 |
| Blackgum | 37.4 | ... | 11.2 | 8.3 | 7.1 | 5.3 | 0.5 | 4.9 | ... |
| White ash | 10.8 | ... | 3.5 | 3.1 | 1.3 | 1.4 | 0.6 | 0.7 | ... |
| Other ashes | 22.9 | ... | 6.3 | 7.8 | 2.8 | 3.5 | 1.2 | 0.9 | 0.4 |
| Sycamore | 1.7 | ... | 0.9 | ... | 0.8 | ... | ... | ... | ... |
| Cottonwood | 25.9 | ... | 7.4 | 2.5 | 4.5 | 6.8 | 3.4 | 0.7 | 0.7 |
| Sweetbay | 0.3 | ... | 0.3 | ... | ... | ... | ... | ... | ... |
| Willow | 4.1 | ... | 0.2 | 1.4 | 1.0 | 0.4 | ... | 0.5 | 0.5 |
| Black walnut | 1.0 | ... | 1.0 | ... | ... | ... | ... | ... | ... |
| Black cherry | 0.5 | ... | 0.5 | ... | ... | ... | ... | ... | ... |
| American elm | 11.0 | ... | 2.3 | 4.1 | 2.0 | 0.5 | ... | 2.2 | ... |
| Other elms | 34.9 | ... | 13.1 | 11.3 | 7.0 | 2.8 | 0.2 | 0.5 | ... |
| River birch | 6.2 | ... | 1.8 | 1.5 | 1.5 | ... | 0.3 | 1.0 | ... |
| Hackberry | 11.6 | ... | 2.1 | 3.0 | 3.8 | 1.5 | ... | 1.2 | ... |
| Other locusts | 4.3 | ... | 1.2 | ... | 1.1 | 0.4 | 0.4 | 1.2 | ... |
| Sassafras | 0.9 | ... | 0.4 | 0.2 | 0.3 | ... | ... | ... | ... |
| Total hardwoods | 1045.1 | ... | 250.5 | 252.6 | 188.7 | 129.4 | 91.8 | 113.1 | 19.1 |
| All species | 3044.0 | 334.7 | 697.7 | 676.9 | 497.1 | 339.7 | 217.0 | 242.9 | 38.1 |

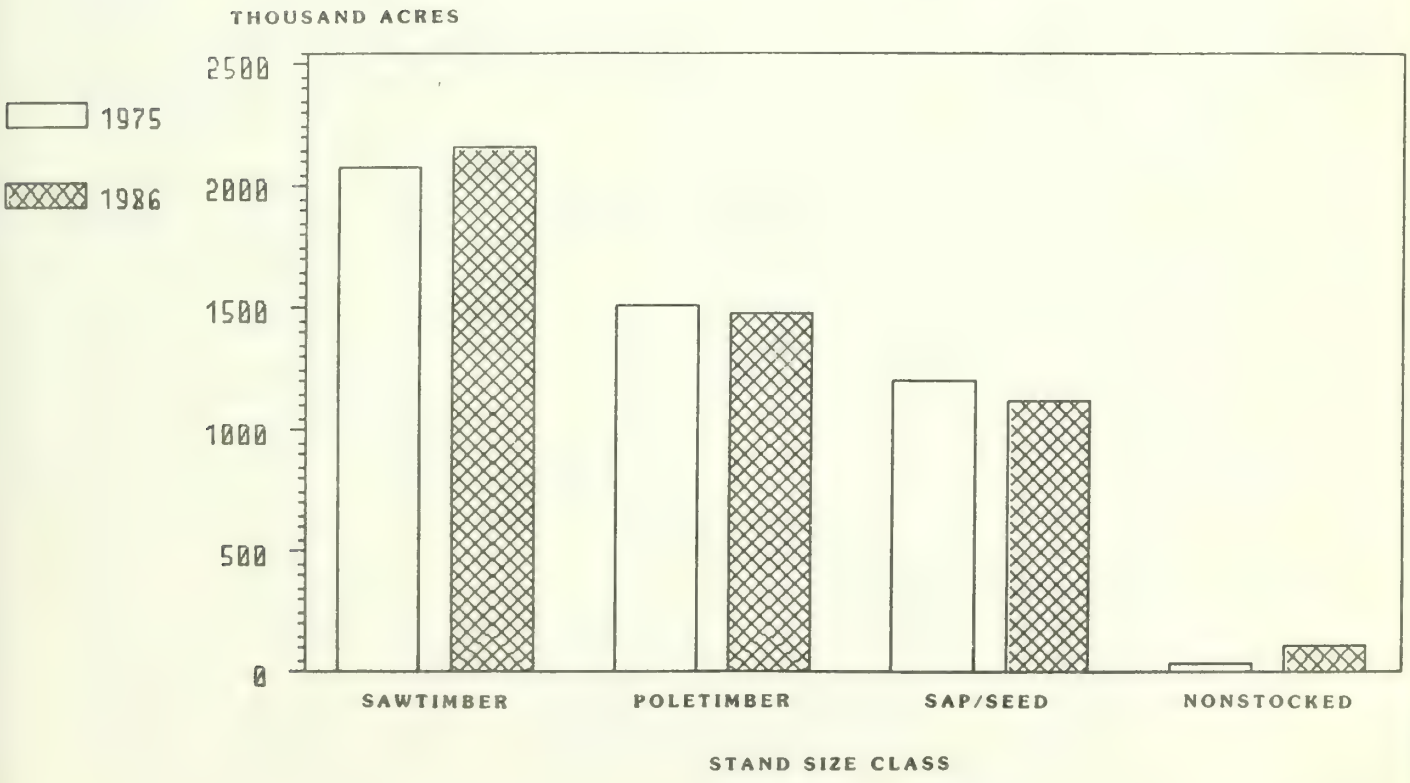
Table 35--Volume of timber on timberland by species and class of timber, Northeast Texas, 1986

| Species | All live | Growing stock | Rough | Rotten |
|---|---|---|---|---|
| | Million cubic feet | | | |
| Slash pine | 42.4 | 41.9 | 0.5 | ... |
| Shortleaf pine | 1316.8 | 1289.0 | 26.1 | 1.7 |
| Loblolly pine | 1322.8 | 1280.9 | 39.9 | 2.0 |
| Redcedar | 17.3 | 14.0 | 3.2 | ... |
| Cypress | 56.3 | 51.4 | 2.7 | 2.1 |
| Total softwoods | 2755.6 | 2677.3 | 72.5 | 5.8 |
| Select white oaks | 142.0 | 125.7 | 12.2 | 4.1 |
| Select red oaks | 90.1 | 69.4 | 12.6 | 8.1 |
| Other white oaks | 478.1 | 336.1 | 118.2 | 23.7 |
| Other red oaks | 791.7 | 619.0 | 127.5 | 45.2 |
| Sweet pecan | 4.0 | 3.1 | 0.9 | ... |
| Water hickory | 15.9 | 12.0 | 3.4 | 0.5 |
| Other hickories | 126.1 | 92.5 | 27.7 | 5.9 |
| Persimmon | 2.6 | 1.9 | 0.7 | ... |
| Hard maple | 4.5 | 1.5 | 1.6 | 1.4 |
| Soft maple | 31.2 | 16.0 | 12.1 | 3.1 |
| Boxelder | 4.4 | 3.3 | 0.9 | 0.2 |
| Beech | 4.3 | 1.3 | 1.1 | 1.8 |
| Sweetgum | 595.9 | 506.7 | 68.3 | 20.9 |
| Blackgum | 99.8 | 77.9 | 15.9 | 6.0 |
| White ash | 26.0 | 19.0 | 5.9 | 1.2 |
| Other ashes | 70.8 | 54.0 | 13.8 | 3.0 |
| Sycamore | 4.7 | 3.2 | ... | 1.5 |
| Cottonwood | 34.3 | 32.7 | ... | 1.6 |
| Basswood | 1.5 | ... | 0.3 | 1.2 |
| Magnolia | 0.4 | 0.4 | ... | ... |
| Sweetbay | 1.5 | 0.8 | 0.6 | ... |
| Willow | 10.9 | 5.5 | 4.2 | 1.2 |
| Black walnut | 4.0 | 1.9 | 2.0 | ... |
| Black cherry | 4.1 | 2.4 | 1.8 | ... |
| American elm | 34.1 | 25.0 | 8.1 | 1.0 |
| Other elms | 142.6 | 99.5 | 40.3 | 2.7 |
| River birch | 25.7 | 18.1 | 6.6 | 1.0 |
| Hackberry | 54.1 | 31.1 | 20.9 | 2.1 |
| Other locusts | 11.7 | 8.7 | 2.3 | 0.6 |
| Sassafras | 4.2 | 2.5 | 1.7 | ... |
| Dogwood | 1.3 | 0.2 | 0.8 | 0.2 |
| Holly | 1.5 | 1.1 | 0.4 | ... |
| Other commercial | 4.4 | 0.9 | 3.3 | 0.2 |
| Total hardwoods | 2828.2 | 2173.5 | 516.2 | 138.5 |
| Noncommercial | 95.1 | ... | 95.1 | ... |
| All species | 5678.9 | 4850.8 | 683.8 | 144.3 |

## AREA OF TIMBERLAND BY FOREST TYPE
NORTHEAST TEXAS 1975 AND 1986

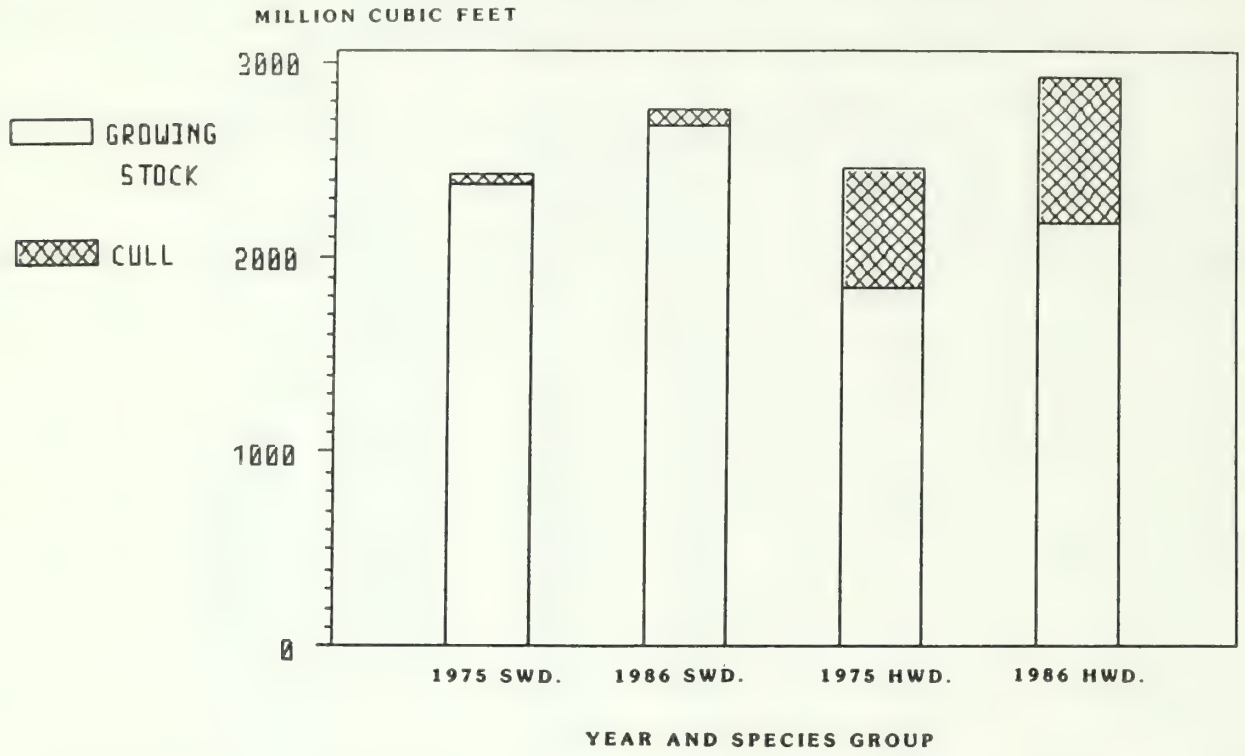



## AREA OF TIMBERLAND BY STAND-SIZE CLASS
NORTHEAST TEXAS 1975 AND 1986



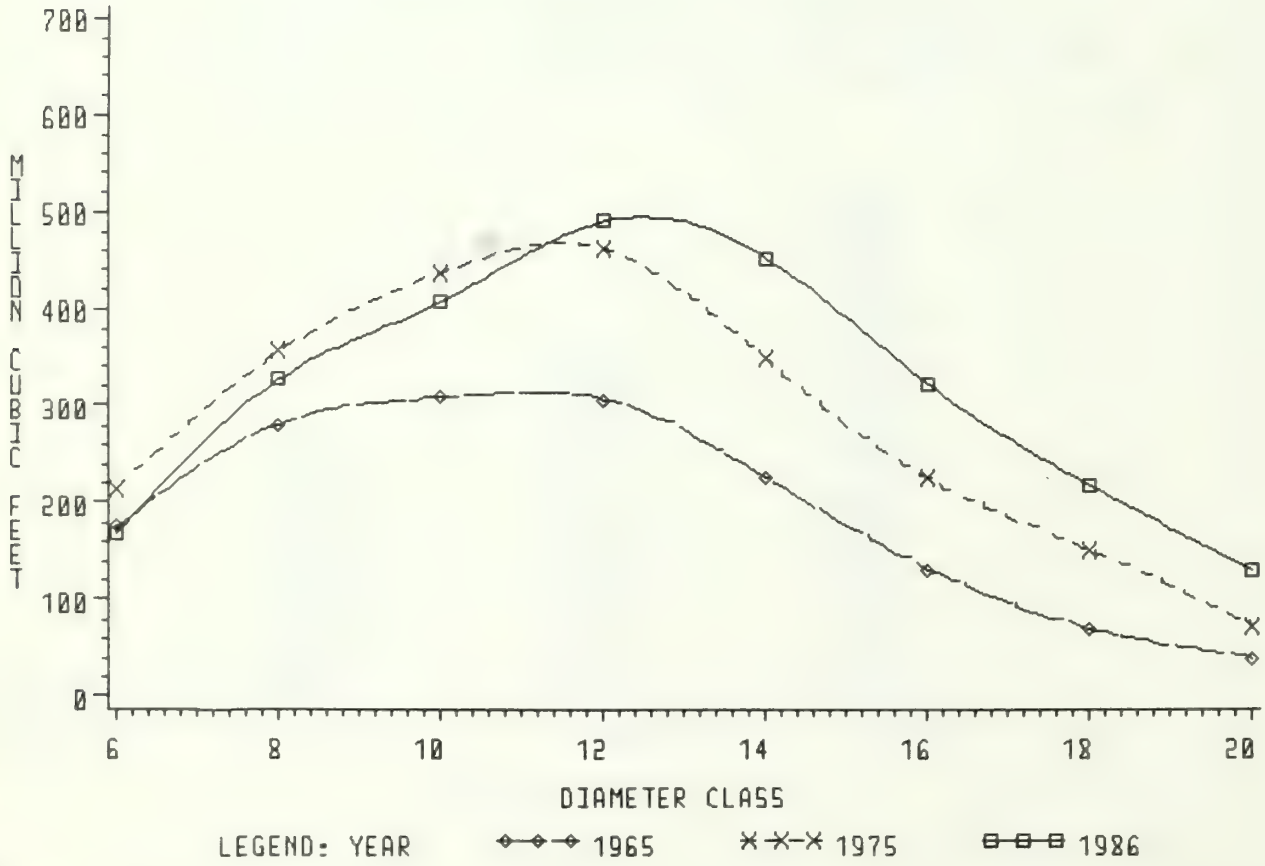
# TIMBER VOLUME BY TREE CLASS AND SPECIES

NORTHEAST TEXAS 1975 AND 1986



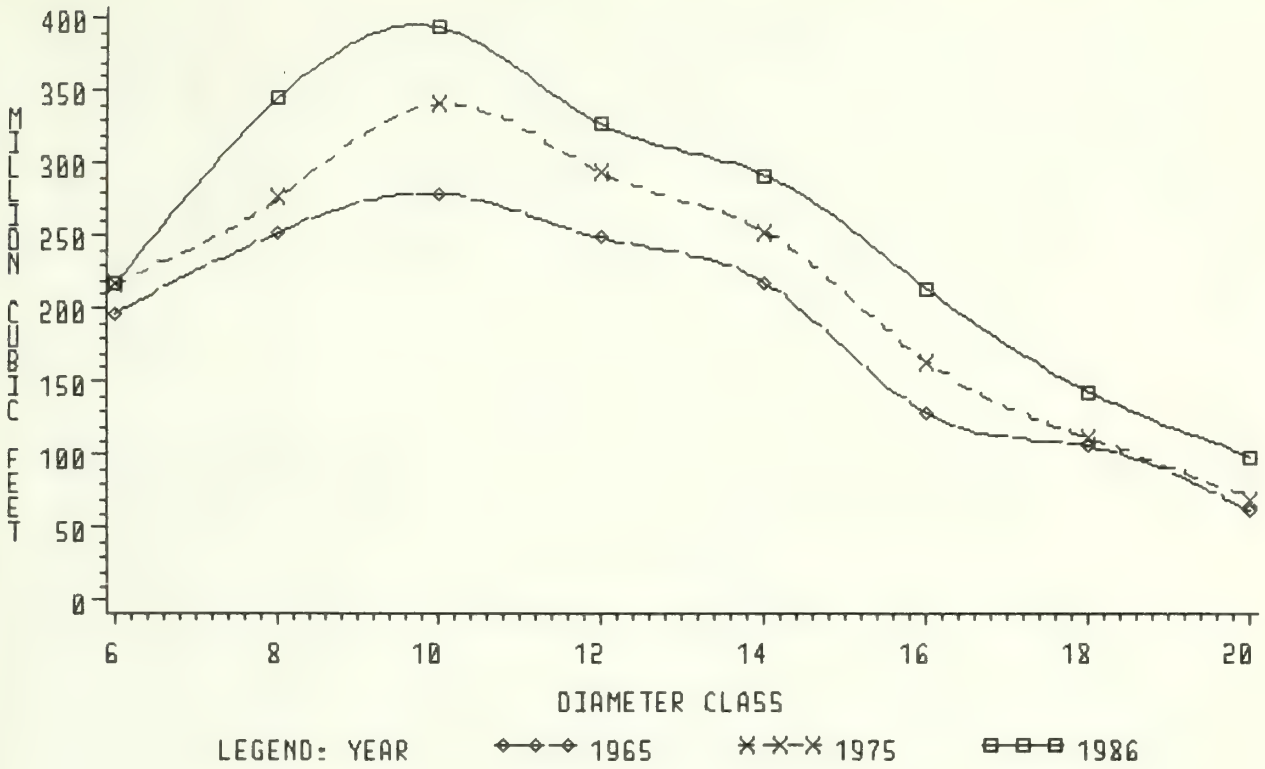

# SOFTWOOD GROWING STOCK VOLUME BY DBH CLASS

NORTHEAST TEXAS 1965, 1975 AND 1986



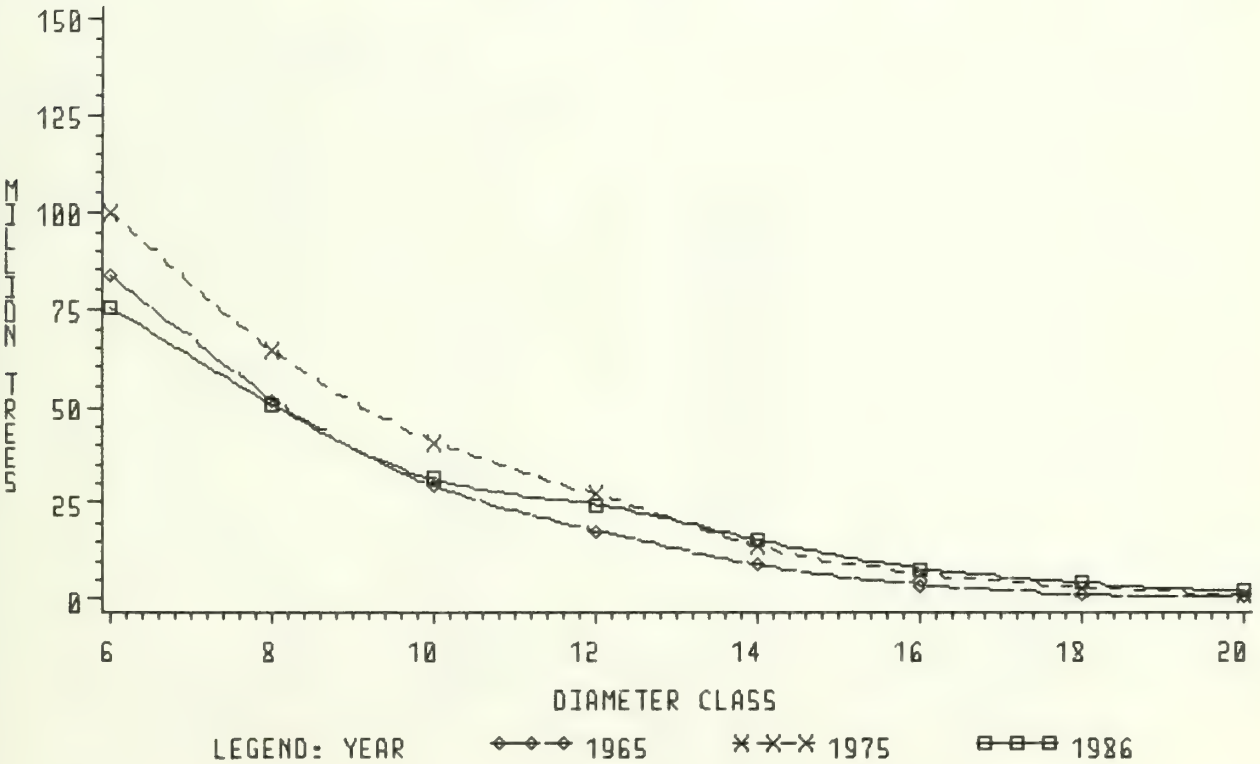
# HARDWOOD GROWING STOCK VOLUME BY DBH CLASS

NORTHEAST TEXAS 1965, 1975, AND 1986



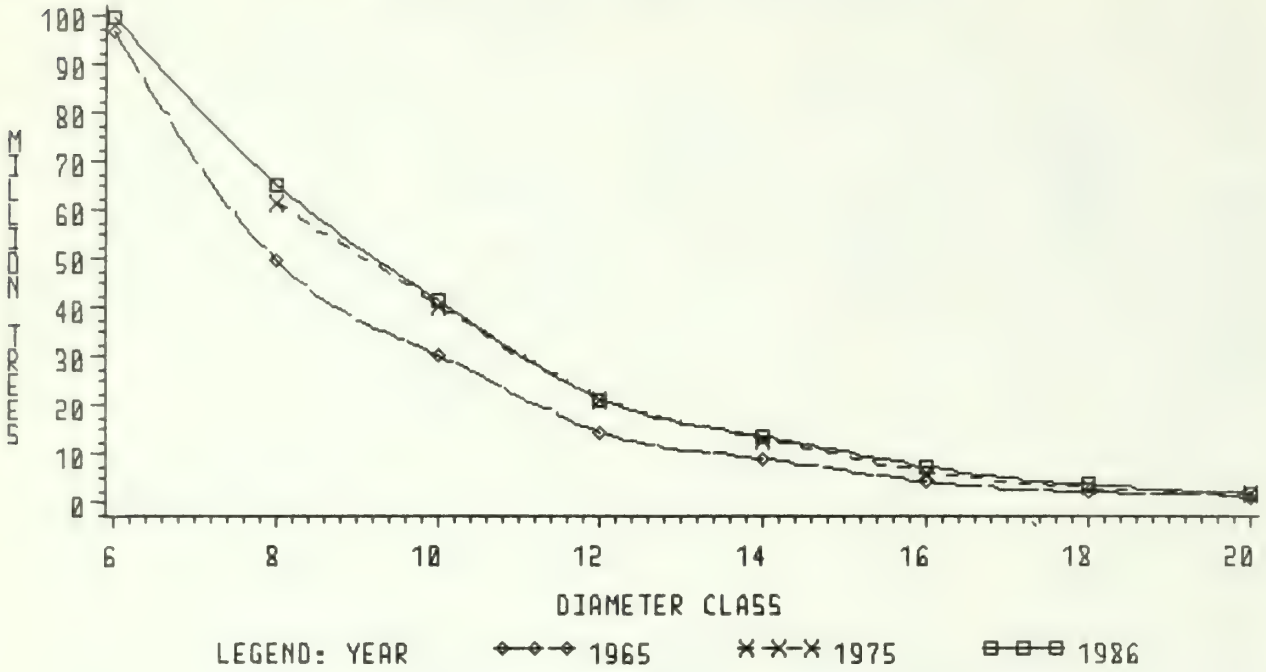

# NUMBER OF SOFTWOOD GROWING STOCK TREES BY DBH CLASS

NORTHEAST TEXAS 1965, 1975, AND 1986



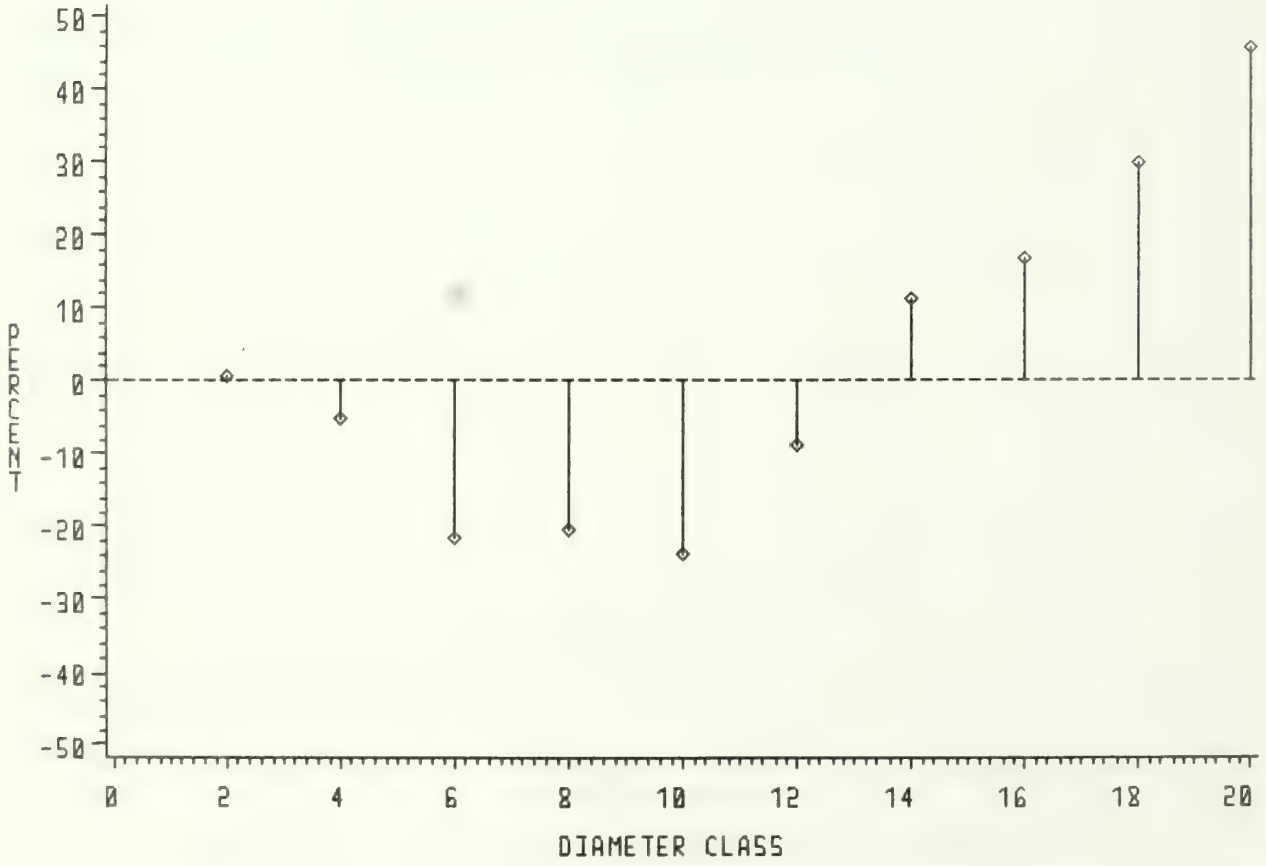
## NUMBER OF HARDWOOD GROWING STOCK TREES BY DBH CLASS

NORTHEAST TEXAS 1965, 1975, AND 1986



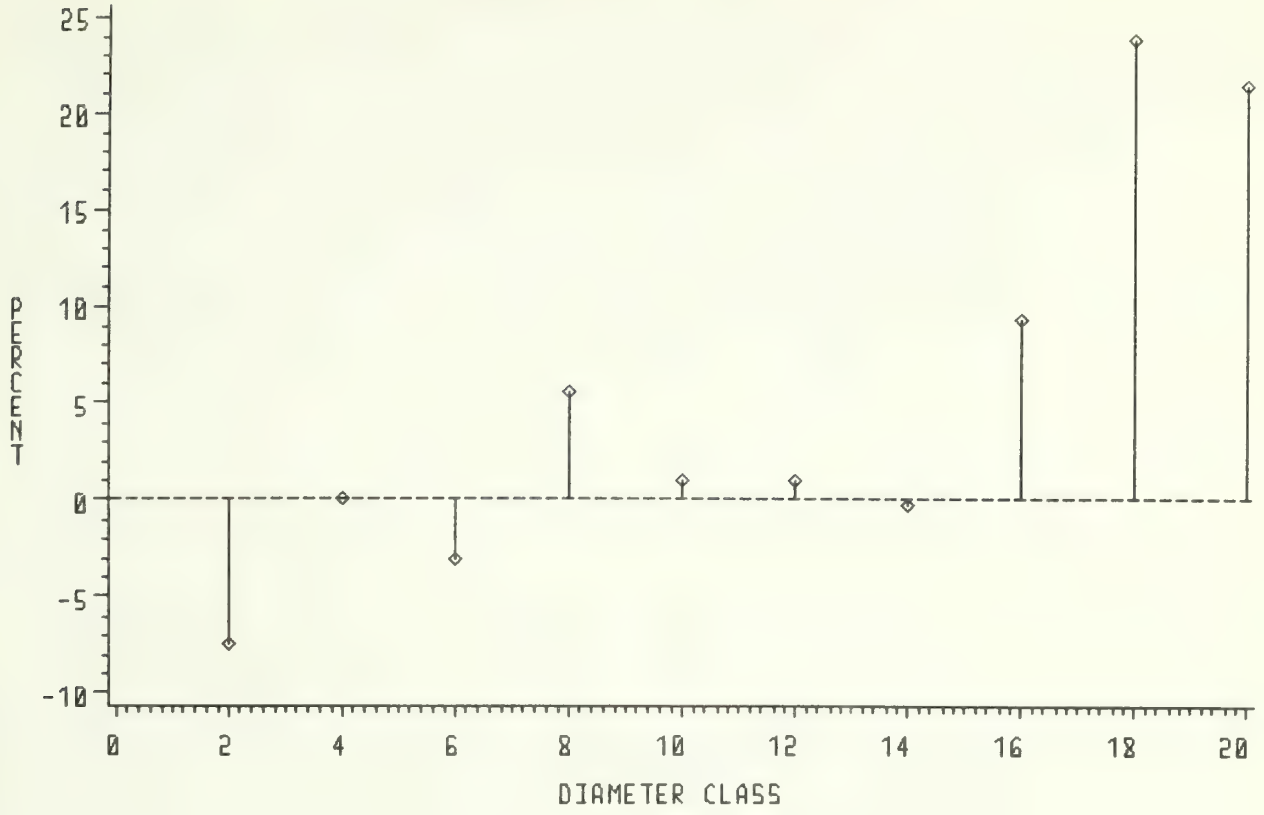

## CHANGE IN NUMBER OF LIVE SOFTWOOD TREES

NORTHEAST TEXAS 1975 TO 1986



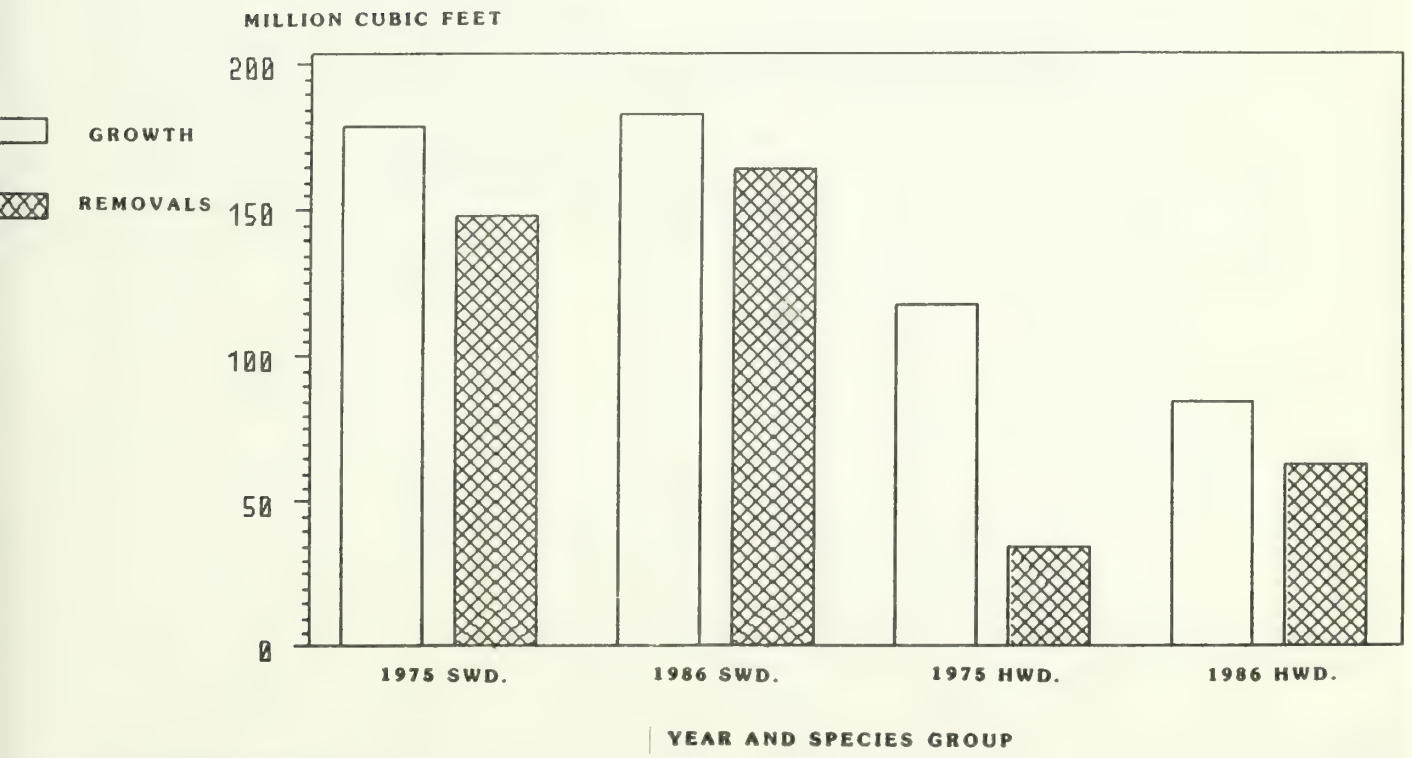
## CHANGE IN NUMBER OF LIVE HARDWOOD TREES

NORTHEAST TEXAS 1975 TO 1986




## GROWTH AND REMOVALS BY SPECIES GROUP

NORTHEAST TEXAS 1975 AND 1986

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Tabulates forest resource information from a new inventory of the Northeast Unit of Texas.

**Additional Keywords:** Area, volume, forest type, stand size, ownership.

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# Forest Statistics for Southeast Texas Counties, 1986

William H. McWilliams and Daniel F. Berglund

## SUMMARY

The Southern Forest Survey, an activity of the Southern Forest Experiment Station Forest Inventory and Analysis work unit, covers the states of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, East Texas and the islands of Puerto Rico.

This survey is part of the nationwide forest survey originally authorized by the McSweeney-McNary Act of 1928. More recent legislation pertinent to the survey mission includes the Forest and Rangeland Renewable Resources Planning Act of 1974 and the Forest Rangeland Renewable Resources Research Act of 1978. The survey mission is to develop, analyze and maintain renewable forest resource information. This information is essential for formulation of forest policies and programs.

## ACKNOWLEDGMENTS

The Southern Station gratefully acknowledges the cooperation and assistance provided by the Texas Forest Service and forest industries in collecting field data. Appreciation is also expressed for the cooperation of other public agencies and other private landowners in providing access to the sample locations.

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*Core tables are presented in response to the Southern Industrial Forestry Research Council's recommendations. These tables are identical among Forest Inventory and Analysis units in the eastern United States.

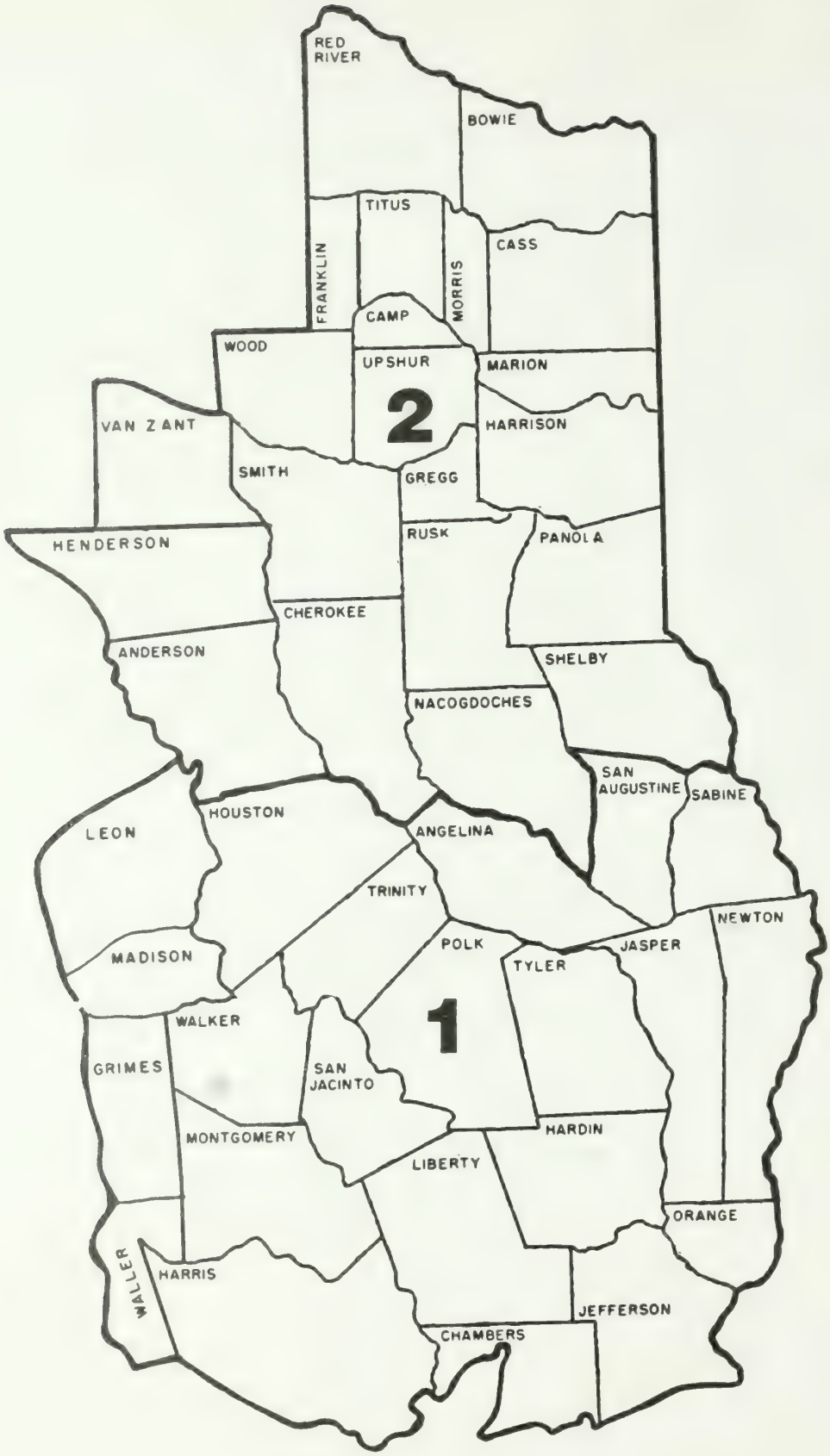


**Figure 1.--The forest survey regions of Texas.**

# Forest Statistics for Southeast Texas Counties - 1986

William H. McWilliams and Daniel F. Bertelson

## INTRODUCTION

These tables were derived from data obtained during a 1986 inventory of 22 counties comprising the Southeast Unit of Texas (fig. 1). Grimes, Leon, Madison, and Waller counties have been added to the Southeastern Unit since the previous inventory of 1975. All comparisons of the 1975 and 1986 forest statistics made in this Bulletin account for this change. The data on forest acreage and timber volume were secured by a systematic sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurement of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. At each forest location, per acre estimates were obtained from 10 BA 37.5 point samples.

The sampling methods were developed to provide suitable estimates for East Texas. Estimates for smaller areas are presented, but sampling error increases as the area considered decreases. Sampling errors given in Table I are based on one standard deviation or a probability of two chances out of three. To estimate the sampling error for a combination of counties, one can use the following:

$$SE_g = \frac{SE_t \sqrt{X_t}}{\sqrt{X_g}}$$

where:

SE = standard error of estimate (expressed as a percent)
X = variable of interest (area or volume)
g = group of counties to be combined
t = total for the unit

Table I--Sampling errors[1] for timberland, growing stock, and sawtimber, Southeast Texas, 1986

| County | Timberland | Growing stock | | | Sawtimber |
|---|---|---|---|---|---|
| | | Volume | Growth | Removals | |
| | Percent | | | | |
| Angelina | 1.9 | 9.2 | 8.9 | 16.6 | 10.6 |
| Grimes | 2.3 | 15.6 | 18.3 | 32.1 | 19.6 |
| Hardin | 1.6 | 9.1 | 12.9 | 8.6 | 11.0 |
| Harris | 1.6 | 12.7 | 28.9 | 26.4 | 13.9 |
| Houston | 1.7 | 10.5 | 8.9 | 11.0 | 12.2 |
| Jasper | 2.0 | 8.3 | 8.0 | 12.3 | 9.5 |
| Jefferson[2] | 0.9 | 19.0 | 31.7 | 47.2 | 20.4 |
| Leon | 3.6 | 13.2 | 22.8 | 34.6 | 15.7 |
| Liberty | 1.3 | 10.1 | 17.4 | 13.8 | 11.5 |
| Madison | 1.2 | 23.1 | 46.9 | ... | 24.3 |
| Montgomery | 2.2 | 7.1 | 10.2 | 8.5 | 8.4 |
| Newton | 1.8 | 7.6 | 7.2 | 10.4 | 8.7 |
| Orange | 2.6 | 13.6 | 15.8 | 34.0 | 14.8 |
| Polk | 1.5 | 8.2 | 8.0 | 8.6 | 9.6 |
| Sabine | 1.9 | 11.1 | 8.3 | 16.1 | 12.6 |
| San Augustine | 1.9 | 11.9 | 14.5 | 14.8 | 14.7 |
| San Jacinto | 1.9 | 10.3 | 12.8 | 13.9 | 11.7 |
| Trinity | 1.5 | 12.6 | 8.2 | 11.0 | 14.3 |
| Tyler | 0.9 | 9.1 | 7.2 | 10.8 | 10.2 |
| Walker | 1.8 | 10.3 | 9.3 | 15.8 | 12.1 |
| Waller | 2.1 | 19.1 | 20.8 | (3) | 21.1 |
| All counties | 0.4 | 2.4 | 2.6 | 3.3 | 2.8 |

[1] By random-sampling formula.

[2] Chambers included in Jefferson.

[3] Sampling error greater than 50.

## HIGHLIGHTS

### Timberland Area

The Southeastern Unit of Texas is 56 percent forested. Ninety-seven percent of the 6,869.4 thousand acres of forest land is classified as timberland capable of growing commercial crops of timber. The area of timberland decreased by 2 percent from 6,806.5 thousand acres in 1975 to 6,666.5 thousand acres in 1986.

Forest industry timberland, including land under long-term lease, decreased by 2 percent to 3,074.0 thousand acres and accounts for 46 percent of the total timberland base. Nonindustrial private timberland showed no significant change and currently totals 3,017.1 thousand acres (45 percent of the total timberland base).

Decreases occurred in both the area of pine type timberland (-9 percent) and oak-pine timberland (-11 percent). The area of oak-hickory stands increased by 46 percent. Bottomland hardwood forests decreased by 16 percent.

The area of pine stands of artificial origin more than doubled since 1975, from 437.5 thousand acres to 935.5 thousand acres. An additional 388.1 thousand acres were regenerated artificially, but are classified according to actual stocking as oak-pine and hardwood forest types until pines outgrow hardwood competition.

### Number of Trees

Stand tables show significant declines in the number of live softwood trees for the 6-inch through the 20-inch class. Increases occurred in the 2-and 4-inch classes. The hardwood stand table shows declines in all but the 20-inch class.

### Volume

The volume of softwood growing stock decreased by 9 percent to 5,243.4 million cubic feet. This contrasts a 14 percent increase that occurred between 1965 and 1975 (excluding Grimes, Leon, Madison, and Waller counties). Softwood sawtimber volume decreased by 4 percent to 24,696.9 million board feet, compared to an 18 percent increase in 1975 (excluding Grimes, Leon, Madison, and Waller counties).

The volume of hardwood growing stock expanded by 3 percent and totaled 2,352.5 million cubic feet, while hardwood sawtimber volume increased by 14 percent to 7,501.6 million board feet.

The sound-wood volume of cull trees (rough and rotten trees) increased by 6 percent. Softwood cull volume represents 2 percent of the total all live softwood timber volume, while hardwood cull volume is 27 percent of the live hardwood timber volume.

### Growth, Removals and Mortality

Average annual gross growth of softwood growing stock increased by 4 percent since 1975, from 312.0 to 323.6 million cubic feet. Average net annual growth of softwoods (average annual gross growth minus average annual mortality) decreased by 4 percent. Average annual mortality more than doubled for softwoods, going from 21.6 to 43.6 million cubic feet. Average annual removals of softwood growing stock totaled 314.3 million cubic feet, an increase of 37 percent.

Average annual gross growth of hardwood growing stock decreased by 1 percent from 101.5 to 100.8 million cubic feet. Average annual mortality increased by roughly 2 1/2 times, going from 9.1 to 23.0 million cubic feet. Average annual removals of hardwood growing stock totaled 69.5 million cubic feet, an increase of 16 percent.

Tables 1-25 were developed to provide compatability among Forest Inventory and Analysis Projects. Tables 26-35 are supplementary tables and may change from unit to unit or state to state to address specific resource issues.

## DEFINITION OF TERMS

*Average annual gross growth.* — Average annual net growth plus average annual mortality.

*Average net annual growth.* — Average annual net volume increase for the inter-survey period.

*Average annual mortality.* — Average annual sound-wood volume of live trees dying from natural causes.

*Average annual removals.* — Average annual net volume of growing-stock trees removed from the inventory by harvesting, cultural operations (such as timber-stand improvement), land clearing, or changes in land use.

*Forest type.* — A classification of forest land based upon the species forming a plurality of live-tree stocking.

*Growing-stock trees.* — Live trees of commercial species. Rough and rotten trees are excluded.

*Growing-stock volume.* — The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches in diameter at breast height, from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or to the point where the central stem breaks into limbs.

*Noncommercial species.* — Tree species of typically small size, poor form, or inferior quality which normally do not develop into trees suitable for industrial wood products.

*Poletimber trees.* — Growing-stock trees of commercial species at least 5.0 inches in diameter at breast height, but smaller than sawtimber size.

*Rotten trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of rot.

*Reserved timberland.* — Productive public forest land withdrawn from timber utilization through statute or administrative regulations.

*Rough trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of roughness or poor form. Also included are all live trees of noncommercial species.

*Sawtimber trees.* — Live trees that are of commercial species, contain at least a 12-foot saw log, and meet regional specifications for freedom from defect. Softwoods must be at least 9.0 inches in diameter at breast height and hardwoods at least 11.0 inches in diameter at breast height.

*Sawtimber volume.* — Sound-wood volume of the saw-log portion of live sawtimber trees in board feet, International 1/4-inch rule and in cubic feet.

*Site class.* — A classification of forest land in terms of inherent capacity to grow crops of industrial wood.

*Stand-size class.* — A classification of forest land based on the size class of growing-stock trees on the sampled area; that is, sawtimber, poletimber, or sapling and seedling.

*Timberland.* — Forest land that is producing, or is capable of producing, crops of industrial wood and not withdrawn from timber utilization. Timberland is synonymous with "commercial forest land" in prior reports.

*Woodland.* — Forest land incapable of yielding crops of industrial wood because of adverse site conditions.

Table 1--Area by county and land class, Southeast Texas, 1986

| County | All land[1] | Forest land | | | | Nonforest land |
|---|---|---|---|---|---|---|
| | | Total | Timberland[2] | Woodland[3] | Reserved timberland | |
| | Thousand acres | | | | | |
| Angelina | 553.6 | 387.1 | 376.6 | ... | 10.5 | 166.5 |
| Chambers[4] | ... | ... | ... | ... | ... | ... |
| Grimes | 512.2 | 168.6 | 168.6 | ... | ... | 343.6 |
| Hardin | 575.0 | 476.5 | 430.0 | ... | 46.5 | 98.5 |
| Harris | 1137.3 | 197.6 | 190.3 | 7.3 | ... | 939.8 |
| Houston | 791.6 | 422.8 | 419.7 | ... | 3.1 | 368.8 |
| Jasper | 620.6 | 508.2 | 500.2 | ... | 8.0 | 112.5 |
| Jefferson[4] | 1044.8 | 73.1 | 72.1 | ... | 1.0 | 971.7 |
| Leon | 690.9 | 309.4 | 233.5 | 75.9 | ... | 381.5 |
| Liberty | 753.3 | 462.9 | 461.6 | ... | 1.3 | 290.4 |
| Madison | 302.5 | 79.0 | 79.0 | ... | ... | 223.5 |
| Montgomery | 688.7 | 444.9 | 441.2 | ... | 3.7 | 243.9 |
| Newton | 601.1 | 549.2 | 549.2 | ... | ... | 51.9 |
| Orange | 242.8 | 125.2 | 124.5 | ... | 0.7 | 117.7 |
| Polk | 708.5 | 556.3 | 539.8 | ... | 16.5 | 152.1 |
| Sabine | 369.6 | 264.1 | 253.4 | ... | 10.7 | 105.5 |
| San Augustine | 378.4 | 288.3 | 283.0 | ... | 5.3 | 90.1 |
| San Jacinto | 402.0 | 290.9 | 290.9 | ... | ... | 111.1 |
| Trinity | 456.6 | 347.2 | 347.2 | ... | ... | 109.4 |
| Tyler | 600.0 | 530.6 | 518.2 | ... | 12.4 | 69.5 |
| Walker | 512.9 | 305.6 | 305.6 | ... | ... | 207.2 |
| Waller | 332.4 | 82.1 | 82.1 | ... | ... | 250.3 |
| All counties | 12274.9 | 6869.4 | 6666.5 | 83.2 | 119.7 | 5405.4 |

[1] From U.S. Bureau of the Census.

[2] Forest land (formerly termed commercial forest land) that is producing or capable of producing at least 20 cubic feet of industrial wood per acre per year. Includes areas which may be inaccessible or inoperable by current standards. Excludes reserved timberlands.

[3] Forest land incapable of producing 20 cubic feet of industrial wood per acre per year under natural conditions because of adverse site condition.

[4] Chambers included in Jefferson.

Table 2--Area of timberland by county and ownership class, Southeast Texas, 1986

| County | All ownerships | National forest | Misc. federal | State | County and municipal | Forest industry[1] | Farmer | Corporate[2] | Individual[2] |
|---|---|---|---|---|---|---|---|---|---|
| | Thousand acres | | | | | | | | |
| Angelina | 376.6 | 34.2 | ... | ... | ... | 184.9 | 61.6 | 13.7 | 82.2 |
| Grimes | 168.6 | ... | ... | ... | ... | 22.0 | 102.6 | ... | 44.0 |
| Hardin | 430.0 | ... | ... | ... | ... | 324.0 | 5.9 | 35.3 | 64.8 |
| Harris | 190.3 | ... | ... | ... | ... | 14.6 | ... | 58.5 | 117.1 |
| Houston | 419.7 | 87.7 | ... | ... | ... | 68.9 | 43.8 | 12.5 | 206.7 |
| Jasper | 500.2 | 24.4 | ... | 6.1 | ... | 347.7 | 6.1 | 12.2 | 103.7 |
| Jefferson[3] | 72.1 | ... | ... | ... | ... | ... | 26.2 | 6.6 | 39.3 |
| Leon | 233.5 | ... | ... | ... | ... | ... | 122.6 | ... | 110.9 |
| Liberty | 461.6 | ... | 5.9 | ... | ... | 189.4 | ... | 23.7 | 242.6 |
| Madison | 79.0 | ... | ... | ... | ... | 7.9 | 47.4 | 15.8 | 7.9 |
| Montgomery | 441.2 | 31.1 | ... | 5.2 | ... | 10.4 | 10.4 | 140.1 | 244.0 |
| Newton | 549.2 | ... | ... | 5.5 | ... | 439.4 | 11.0 | 11.0 | 82.4 |
| Orange | 124.5 | ... | ... | ... | ... | 56.6 | ... | 5.7 | 62.2 |
| Polk | 539.8 | ... | ... | ... | ... | 425.0 | 5.7 | 5.7 | 103.4 |
| Sabine | 253.4 | 63.4 | ... | ... | ... | 126.7 | 5.3 | 5.3 | 52.8 |
| San Augustine | 283.0 | 61.5 | 6.2 | ... | ... | 147.7 | 12.3 | ... | 55.4 |
| San Jacinto | 290.9 | 65.3 | ... | ... | 5.9 | 89.1 | 17.8 | 23.7 | 89.1 |
| Trinity | 347.2 | 102.9 | ... | ... | ... | 199.3 | ... | ... | 45.0 |
| Tyler | 518.2 | ... | ... | ... | ... | 393.1 | 6.0 | 23.8 | 95.3 |
| Walker | 305.6 | 60.1 | ... | 10.0 | ... | 20.0 | 20.0 | 10.0 | 185.4 |
| Waller | 82.1 | ... | ... | ... | ... | 7.5 | 22.4 | 14.9 | 37.3 |
| All counties | 6666.5 | 530.7 | 12.1 | 26.8 | 5.9 | 3074.0 | 527.1 | 418.7 | 2071.3 |

[1] Includes land leased to forest industry.

[2] Indian land will be classed as corporate or individual as defined by the Bureau of Indian Affairs.

[3] Chambers included in Jefferson.

Table 3--Area of timberland by county and forest type group, Southeast Texas, 1986

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Thousand acres | | | | | | | | |
| Angelina | 376.6 | 6.8 | ... | 54.8 | 178.0 | 68.5 | 41.1 | 27.4 | ... |
| Grimes | 168.6 | ... | ... | 7.3 | 51.3 | 29.3 | 51.3 | 29.3 | ... |
| Hardin | 430.0 | 29.5 | 5.9 | 58.9 | 82.5 | 100.1 | 111.9 | 41.2 | ... |
| Harris | 190.3 | ... | ... | 7.3 | 58.5 | 36.6 | 65.9 | 22.0 | ... |
| Houston | 419.7 | 6.3 | ... | 31.3 | 144.1 | 81.4 | 94.0 | 62.6 | ... |
| Jasper | 500.2 | 42.7 | 12.2 | 30.5 | 134.2 | 146.4 | 73.2 | 61.0 | ... |
| Jefferson[1] | 72.1 | ... | ... | ... | 19.7 | 6.6 | 13.1 | 32.8 | ... |
| Leon | 233.5 | ... | ... | ... | 11.7 | 5.8 | 169.3 | 40.9 | 5.8 |
| Liberty | 461.6 | ... | ... | 29.6 | 41.4 | 47.3 | 147.9 | 195.3 | ... |
| Madison | 79.0 | ... | ... | ... | 7.9 | 7.9 | 55.3 | 7.9 | ... |
| Montgomery | 441.2 | ... | ... | 26.0 | 186.9 | 129.8 | 72.7 | 26.0 | ... |
| Newton | 549.2 | 76.9 | 16.5 | 98.9 | 93.4 | 76.9 | 137.3 | 49.4 | ... |
| Orange | 124.5 | 5.7 | ... | ... | 22.6 | 39.6 | 17.0 | 39.6 | ... |
| Polk | 539.8 | ... | 11.5 | 132.1 | 201.0 | 97.6 | 51.7 | 45.9 | ... |
| Sabine | 253.4 | 5.3 | ... | 21.1 | 121.4 | 47.5 | 58.1 | ... | ... |
| San Augustine | 283.0 | ... | ... | 67.7 | 92.3 | 49.2 | 30.8 | 43.1 | ... |
| San Jacinto | 290.9 | ... | ... | 23.7 | 106.9 | 71.2 | 77.2 | 11.9 | ... |
| Trinity | 347.2 | ... | 6.4 | 70.7 | 141.5 | 64.3 | 45.0 | 19.3 | ... |
| Tyler | 518.2 | 11.9 | 17.9 | 65.5 | 95.3 | 172.7 | 113.2 | 41.7 | ... |
| Walker | 305.6 | ... | ... | 25.1 | 160.3 | 40.1 | 65.1 | 15.0 | ... |
| Waller | 82.1 | ... | ... | ... | 44.8 | 14.9 | 7.5 | 14.9 | ... |
| All counties | 6666.5 | 185.0 | 70.3 | 750.5 | 1995.5 | 1333.9 | 1498.3 | 827.1 | 5.8 |

[1] Chambers included in Jefferson.

Table 4--Area of timberland by county and stand-size class, Southeast Texas, 1986

| County | All classes | Stand-size class | | | Nonstocked[1] areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | Thousand acres | | | | |
| Angelina | 376.6 | 226.0 | 75.3 | 75.3 | ... |
| Grimes | 168.6 | 95.3 | 44.0 | 22.0 | 7.3 |
| Hardin | 430.0 | 153.2 | 70.7 | 164.9 | 41.2 |
| Harris | 190.3 | 102.4 | 29.3 | 43.9 | 14.6 |
| Houston | 419.7 | 256.8 | 75.2 | 81.4 | 6.3 |
| Jasper | 500.2 | 292.8 | 109.8 | 97.6 | ... |
| Jefferson[2] | 72.1 | 59.0 | ... | 6.6 | 6.6 |
| Leon | 233.5 | 75.9 | 110.9 | 29.2 | 17.5 |
| Liberty | 461.6 | 248.5 | 118.4 | 88.8 | 5.9 |
| Madison | 79.0 | 39.5 | 31.6 | ... | 7.9 |
| Montgomery | 441.2 | 311.4 | 83.0 | 41.5 | 5.2 |
| Newton | 549.2 | 230.7 | 137.3 | 181.2 | ... |
| Orange | 124.5 | 84.9 | 17.0 | 17.0 | 5.7 |
| Polk | 539.8 | 229.7 | 74.7 | 224.0 | 11.5 |
| Sabine | 253.4 | 158.4 | 31.7 | 63.4 | ... |
| San Augustine | 283.0 | 141.5 | 36.9 | 104.6 | ... |
| San Jacinto | 290.9 | 166.2 | 47.5 | 77.2 | ... |
| Trinity | 347.2 | 173.6 | 64.3 | 109.3 | ... |
| Tyler | 518.2 | 244.2 | 95.3 | 166.8 | 11.9 |
| Walker | 305.6 | 200.4 | 60.1 | 45.1 | ... |
| Waller | 82.1 | 59.7 | 14.9 | 7.5 | ... |
| All counties | 6666.5 | 3550.0 | 1327.8 | 1647.1 | 141.6 |

[1] Timberland less than 16.7 percent stocked.

[2] Chambers included in Jefferson.

Table 5--Area of timberland by county and site class, Southeast Texas, 1986

| County | All classes | Site class (cubic feet/acre/year) | | | | |
|---|---|---|---|---|---|---|
| | | > 165 | 120-165 | 85-120 | 50-85 | < 50 |
| | Thousand acres | | | | | |
| Angelina | 376.6 | 27.4 | 102.7 | 184.9 | 61.6 | ... |
| Grimes | 168.6 | ... | 14.7 | 51.3 | 87.9 | 14.7 |
| Hardin | 430.0 | 5.9 | 117.8 | 206.2 | 82.5 | 17.7 |
| Harris | 190.3 | 7.3 | 36.6 | 109.8 | 29.3 | 7.3 |
| Houston | 419.7 | 31.3 | 175.4 | 137.8 | 75.2 | ... |
| Jasper | 500.2 | 73.2 | 146.4 | 183.0 | 97.6 | ... |
| Jefferson[1] | 72.1 | 6.6 | 6.6 | 45.9 | 13.1 | ... |
| Leon | 233.5 | 11.7 | 5.8 | 29.2 | 75.9 | 110.9 |
| Liberty | 461.6 | 29.6 | 100.6 | 112.4 | 183.4 | 35.5 |
| Madison | 79.0 | 15.8 | 15.8 | 15.8 | 23.7 | 7.9 |
| Montgomery | 441.2 | 36.3 | 114.2 | 155.7 | 124.6 | 10.4 |
| Newton | 549.2 | 98.9 | 186.7 | 203.2 | 54.9 | 5.5 |
| Orange | 124.5 | 11.3 | 56.6 | 45.3 | 11.3 | ... |
| Polk | 539.8 | ... | 109.1 | 298.6 | 132.1 | ... |
| Sabine | 253.4 | 73.9 | 110.9 | 52.8 | 15.8 | ... |
| San Augustine | 283.0 | 55.4 | 86.1 | 129.2 | 12.3 | ... |
| San Jacinto | 290.9 | 11.9 | 83.1 | 142.5 | 47.5 | 5.9 |
| Trinity | 347.2 | 25.7 | 102.9 | 147.9 | 64.3 | 6.4 |
| Tyler | 518.2 | 47.6 | 226.3 | 202.5 | 41.7 | ... |
| Walker | 305.6 | 5.0 | 55.1 | 145.3 | 85.2 | 15.0 |
| Waller | 82.1 | 14.9 | 22.4 | 22.4 | 22.4 | ... |
| All counties | 6666.5 | 589.7 | 1875.8 | 2621.5 | 1342.3 | 237.2 |

[1] Chambers included in Jefferson.

Table 6--Area of timberland, by county and stocking classes of growing-stock trees, Southeast Texas, 1986

| County | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | > 130 | 100-130 | 60-100 | 16.7-60 | < 16.7 |
| | Thousand acres | | | | | |
| Angelina | 376.6 | 20.5 | 137.0 | 157.5 | 61.6 | ... |
| Grimes | 168.6 | ... | 7.3 | 14.7 | 139.2 | 7.3 |
| Hardin | 430.0 | 23.6 | 35.3 | 235.6 | 94.2 | 41.2 |
| Harris | 190.3 | ... | 14.6 | 109.8 | 51.2 | 14.6 |
| Houston | 419.7 | 12.5 | 87.7 | 194.2 | 119.0 | 6.3 |
| Jasper | 500.2 | 12.2 | 79.3 | 268.4 | 140.3 | ... |
| Jefferson[1] | 72.1 | 13.1 | ... | 26.2 | 26.2 | 6.6 |
| Leon | 233.5 | ... | ... | 81.7 | 134.3 | 17.5 |
| Liberty | 461.6 | ... | 23.7 | 224.9 | 207.1 | 5.9 |
| Madison | 79.0 | ... | ... | 23.7 | 47.4 | 7.9 |
| Montgomery | 441.2 | ... | 77.9 | 275.1 | 83.0 | 5.2 |
| Newton | 549.2 | 16.5 | 98.9 | 263.6 | 170.3 | ... |
| Orange | 124.5 | ... | ... | 73.5 | 45.3 | 5.7 |
| Polk | 539.8 | 17.2 | 178.0 | 235.4 | 97.6 | 11.5 |
| Sabine | 253.4 | 26.4 | 79.2 | 132.0 | 15.8 | ... |
| San Augustine | 283.0 | 18.5 | 110.7 | 116.9 | 36.9 | ... |
| San Jacinto | 290.9 | 5.9 | 59.4 | 148.4 | 77.2 | ... |
| Trinity | 347.2 | 6.4 | 90.0 | 205.7 | 45.0 | ... |
| Tyler | 518.2 | 11.9 | 59.6 | 303.7 | 131.0 | 11.9 |
| Walker | 305.6 | 15.0 | 65.1 | 145.3 | 80.2 | ... |
| Waller | 82.1 | ... | 7.5 | 52.2 | 22.4 | ... |
| All counties | 6666.5 | 199.8 | 1211.1 | 3288.7 | 1825.3 | 141.6 |

[1] Chambers included in Jefferson.

Table 7--Area of timberland by forest type and ownership class, Southeast Texas, 1986

| Forest type[1] | All ownerships | National forest | Other public | Forest industry | Forest industry-leased | Other private |
|---|---|---|---|---|---|---|
| | Thousand acres | | | | | |
| Longleaf-slash pine | 255.3 | 11.4 | ... | 220.7 | ... | 23.3 |
| Loblolly-shortleaf pine | 2746.0 | 386.6 | 26.6 | 1209.1 | ... | 1123.7 |
| Softwood total | 3001.4 | 398.0 | 26.6 | 1429.7 | ... | 1147.0 |
| Oak-pine | 1333.9 | 52.4 | 6.1 | 666.0 | ... | 609.3 |
| Oak-hickory | 1498.3 | 56.6 | ... | 607.1 | 19.3 | 815.3 |
| Oak-gum-cypress | 827.1 | 23.7 | 12.1 | 345.8 | 5.9 | 439.6 |
| Elm-ash-cottonwood | 5.8 | ... | ... | ... | ... | 5.8 |
| Hardwood total | 3665.1 | 132.7 | 18.2 | 1619.0 | 25.2 | 1870.1 |
| All types | 6666.5 | 530.7 | 44.8 | 3048.7 | 25.2 | 3017.1 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

Table 8--Area of timberland, by ownership and stocking classes of growing-stock trees, Southeast Texas, 1986

| Ownership class | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | > 130 | 100-130 | 60-100 | 16.7-60 | < 16.7 |
| | Thousand acres | | | | | |
| National forest | 530.7 | 28.6 | 216.9 | 252.5 | 32.6 | ... |
| Other public | 44.8 | ... | 11.2 | 22.2 | 11.4 | ... |
| Forest industry | 3048.7 | 129.5 | 525.9 | 1547.4 | 781.0 | 65.0 |
| Forest industry-leased | 25.2 | ... | ... | 11.4 | 13.8 | ... |
| Other private | 3017.1 | 41.7 | 457.2 | 1455.1 | 986.5 | 76.6 |
| All ownerships | 6666.5 | 199.8 | 1211.1 | 3288.7 | 1825.3 | 141.6 |

Table 9--Area of timberland by forest type and stand-size class, Southeast Texas, 1986

| Forest type[1] | All classes | Stand-size class | | | Nonstocked areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | Thousand acres | | | | |
| Longleaf-slash pine | 255.3 | 77.5 | 127.2 | 50.6 | ... |
| Loblolly-shortleaf pine | 2746.0 | 1706.9 | 427.9 | 605.3 | 6.0 |
| Softwood total | 3001.4 | 1784.4 | 555.1 | 655.9 | 6.0 |
| Oak-pine | 1333.9 | 694.7 | 252.7 | 375.1 | 11.4 |
| Oak-hickory | 1498.3 | 520.4 | 378.3 | 513.4 | 86.2 |
| Oak-gum-cypress | 827.1 | 544.8 | 141.5 | 102.8 | 38.0 |
| Elm-ash-cottonwood | 5.8 | 5.8 | ... | ... | ... |
| Hardwood total | 3665.2 | 1765.7 | 772.6 | 991.2 | 135.6 |
| All types | 6666.5 | 3550.0 | 1327.8 | 1647.1 | 141.6 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood type.

Table 10--Number of live trees on timberland by species and diameter class, Southeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| Longleaf-slash pines | 108233 | 38621 | 30025 | 17526 | 12295 | 5036 | 2634 | 1318 | 552 | 140 | 49 | 38 | ... |
| Shortleaf-loblolly pine | 1080350 | 503115 | 232788 | 131206 | 74392 | 45721 | 34124 | 23881 | 16521 | 8708 | 4957 | 4758 | 177 |
| Cypress | 4156 | ... | 601 | 1285 | 1100 | 224 | 255 | 200 | 173 | 127 | 70 | 111 | 8 |
| Other softwoods | 10122 | 5807 | 1781 | 414 | 1049 | 431 | 225 | 231 | 96 | 58 | 12 | 17 | ... |
| Total softwoods | 1202861 | 547544 | 265195 | 150431 | 88836 | 51411 | 37238 | 25630 | 17343 | 9034 | 5089 | 4925 | 185 |
| Select white oaks | 48094 | 24241 | 8501 | 5383 | 3263 | 2176 | 1165 | 1211 | 890 | 465 | 266 | 492 | 41 |
| Select red oaks | 55455 | 38929 | 6410 | 3837 | 1808 | 1364 | 812 | 780 | 294 | 335 | 334 | 441 | 111 |
| Other white oaks | 150171 | 68971 | 27784 | 21378 | 12181 | 8670 | 4424 | 2754 | 1811 | 957 | 587 | 577 | 77 |
| Other red oaks | 343621 | 215978 | 45631 | 24652 | 18655 | 12891 | 8700 | 6017 | 4302 | 2763 | 1610 | 2117 | 306 |
| Hickory | 60656 | 34646 | 11280 | 4431 | 3660 | 3125 | 1587 | 985 | 457 | 237 | 94 | 146 | 8 |
| Hard maple | 365 | ... | ... | 158 | 53 | 39 | 87 | ... | ... | 27 | ... | ... | ... |
| Soft maple | 82374 | 61154 | 10952 | 5382 | 2950 | 1027 | 470 | 185 | 99 | 100 | 11 | 45 | ... |
| Beech | 5028 | 1472 | 1030 | ... | 272 | 472 | 444 | 456 | 360 | 213 | 107 | 184 | 19 |
| Sweetgum | 453129 | 296998 | 77512 | 36925 | 18930 | 10726 | 5938 | 2707 | 1513 | 717 | 604 | 498 | 61 |
| Tupelo-blackgum | 190436 | 134224 | 30363 | 11577 | 5923 | 2525 | 1869 | 1696 | 1095 | 478 | 286 | 353 | 46 |
| Ash | 67793 | 52381 | 6040 | 4011 | 1580 | 1271 | 891 | 696 | 391 | 308 | 100 | 111 | 14 |
| Cottonwood-aspen | 1113 | 543 | 543 | ... | ... | ... | ... | 23 | ... | ... | ... | 5 | ... |
| Basswood | 3426 | 1092 | 2183 | ... | ... | 70 | ... | 69 | 12 | ... | ... | ... | ... |
| Black walnut | 1922 | 1698 | ... | 88 | ... | 89 | 28 | 16 | ... | ... | ... | ... | 3 |
| Other hardwoods | 509480 | 373422 | 83546 | 25918 | 12148 | 6441 | 3540 | 1926 | 1046 | 671 | 326 | 452 | 45 |
| Total hardwoods | 1973063 | 1305748 | 311774 | 143739 | 81424 | 50885 | 29957 | 19520 | 12272 | 7270 | 4323 | 5421 | 731 |
| Noncommercial | 351486 | 266380 | 57056 | 18568 | 6374 | 1830 | 681 | 346 | 179 | 35 | 8 | 29 | ... |
| All species | 3527411 | 2119672 | 634025 | 312738 | 176634 | 104126 | 67876 | 45495 | 29794 | 16338 | 9421 | 10375 | 916 |

Table 11--Number of growing-stock trees on timberland by species and diameter class, Southeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| Longleaf-slash pines | 94134 | 32200 | 24701 | 16104 | 11920 | 4544 | 2605 | 1294 | 552 | 127 | 49 | 38 | ... |
| Shortleaf-loblolly pine | 884470 | 369123 | 186041 | 121721 | 70913 | 44464 | 33778 | 23737 | 16438 | 8558 | 4897 | 4634 | 165 |
| Cypress | 3226 | ... | ... | 1285 | 857 | 181 | 255 | 180 | 173 | 127 | 70 | 89 | 8 |
| Other softwoods | 8091 | 4772 | 1781 | 291 | 591 | 281 | 102 | 159 | 77 | 13 | 12 | 9 | ... |
| Total softwoods | 989921 | 406095 | 212523 | 139402 | 84281 | 49471 | 36740 | 25371 | 17241 | 8825 | 5029 | 4769 | 173 |
| Select white oaks | 25678 | 8164 | 5200 | 3802 | 2862 | 2008 | 1023 | 1022 | 673 | 366 | 225 | 305 | 27 |
| Select red oaks | 31550 | 19699 | 3649 | 3148 | 1360 | 1125 | 676 | 678 | 219 | 296 | 255 | 363 | 82 |
| Other white oaks | 52579 | 10030 | 8107 | 12624 | 8713 | 6298 | 2897 | 1613 | 1131 | 576 | 259 | 317 | 13 |
| Other red oaks | 138901 | 59507 | 20252 | 17694 | 14080 | 10306 | 5888 | 4318 | 2874 | 1862 | 987 | 1038 | 96 |
| Hickory | 23030 | 9846 | 5226 | 1948 | 1854 | 2019 | 915 | 660 | 308 | 82 | 64 | 107 | ... |
| Hard maple | 228 | ... | ... | 158 | ... | 39 | 31 | ... | ... | ... | ... | ... | ... |
| Soft maple | 22987 | 13306 | 4131 | 2615 | 2102 | 492 | 233 | 39 | 34 | 27 | ... | 8 | ... |
| Beech | 1802 | 484 | ... | ... | 128 | 237 | 271 | 298 | 206 | 97 | 48 | 32 | ... |
| Sweetgum | 202759 | 108202 | 36099 | 24600 | 15660 | 8532 | 4962 | 2195 | 1127 | 550 | 476 | 317 | 39 |
| Tupelo-blackgum | 49685 | 22107 | 11115 | 6371 | 4545 | 1841 | 1212 | 1109 | 733 | 314 | 196 | 142 | ... |
| Ash | 22497 | 14633 | 2193 | 2232 | 1068 | 809 | 602 | 477 | 263 | 172 | 20 | 26 | 4 |
| Cottonwood-aspen | 571 | 543 | ... | ... | ... | ... | ... | 23 | ... | ... | ... | 5 | ... |
| Basswood | 1114 | ... | 1092 | ... | ... | ... | ... | 22 | ... | ... | ... | ... | ... |
| Black walnut | 80 | ... | ... | ... | ... | 52 | 28 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 136482 | 76402 | 31550 | 13150 | 7013 | 3921 | 1971 | 1152 | 557 | 380 | 173 | 207 | 8 |
| Total hardwoods | 709942 | 342923 | 128614 | 88341 | 59384 | 37678 | 20709 | 13605 | 8125 | 4722 | 2705 | 2868 | 268 |
| All species | 1699863 | 749018 | 341137 | 227743 | 143666 | 87149 | 57449 | 38975 | 25366 | 13548 | 7734 | 7637 | 441 |

Table 12--Volume of growing stock on timberland by species and diameter class, Southeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | | | |
| Longleaf-slash pines | 305.6 | 45.0 | 75.5 | 59.4 | 54.8 | 36.5 | 21.3 | 6.8 | 3.3 | 3.0 | ... |
| Shortleaf-loblolly pine | 4882.3 | 316.7 | 457.8 | 599.6 | 735.5 | 748.2 | 705.4 | 470.1 | 344.1 | 474.3 | 30.5 |
| Cypress | 43.7 | 2.3 | 4.1 | 2.3 | 4.2 | 4.6 | 6.7 | 6.0 | 3.9 | 8.0 | 1.5 |
| Other softwoods | 11.8 | 0.6 | 2.2 | 2.3 | 1.4 | 2.3 | 2.0 | 0.4 | 0.3 | 0.3 | ... |
| Total softwoods | 5243.4 | 364.6 | 539.6 | 663.6 | 796.0 | 791.6 | 735.4 | 483.3 | 351.6 | 485.6 | 32.1 |
| Select white oaks | 164.3 | 10.2 | 15.7 | 20.8 | 18.8 | 23.9 | 21.7 | 15.7 | 11.2 | 22.5 | 3.8 |
| Select red oaks | 136.3 | 8.0 | 7.6 | 12.3 | 11.3 | 17.3 | 6.8 | 12.9 | 14.2 | 32.2 | 13.8 |
| Other white oaks | 251.3 | 27.8 | 41.0 | 50.2 | 37.3 | 27.1 | 26.0 | 16.3 | 8.8 | 15.4 | 1.3 |
| Other red oaks | 719.4 | 48.6 | 77.4 | 106.3 | 94.1 | 97.8 | 85.8 | 76.5 | 49.4 | 71.2 | 12.1 |
| Hickory | 80.2 | 4.3 | 9.2 | 16.6 | 13.2 | 13.5 | 8.4 | 3.5 | 3.4 | 8.0 | ... |
| Hard maple | 1.5 | 0.3 | ... | 0.5 | 0.7 | ... | ... | ... | ... | ... | ... |
| Soft maple | 32.1 | 8.4 | 11.4 | 5.0 | 3.8 | 1.1 | 0.9 | 1.2 | ... | 0.3 | ... |
| Beech | 29.8 | ... | 0.6 | 2.7 | 3.6 | 7.3 | 6.2 | 4.5 | 2.9 | 2.0 | ... |
| Sweetgum | 508.0 | 60.9 | 89.0 | 90.1 | 86.2 | 58.6 | 40.1 | 25.7 | 25.8 | 26.0 | 5.6 |
| Tupelo-blackgum | 156.8 | 14.6 | 22.6 | 18.9 | 19.4 | 26.0 | 22.4 | 13.0 | 9.7 | 10.2 | ... |
| Ash | 55.9 | 5.4 | 6.0 | 8.4 | 9.5 | 10.4 | 7.8 | 6.1 | 0.7 | 1.2 | 0.3 |
| Cottonwood-aspen | 1.1 | ... | ... | ... | ... | 0.6 | ... | ... | ... | 0.5 | ... |
| Basswood | 0.3 | ... | ... | ... | ... | 0.3 | ... | ... | ... | ... | ... |
| Black walnut | 0.5 | ... | ... | 0.3 | 0.2 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 214.8 | 31.2 | 37.0 | 36.2 | 29.1 | 24.2 | 16.6 | 13.5 | 8.2 | 17.1 | 1.6 |
| Total hardwoods | 2352.5 | 219.8 | 317.5 | 368.3 | 327.3 | 308.2 | 242.9 | 188.9 | 134.3 | 206.8 | 38.5 |
| All species | 7595.9 | 584.4 | 857.1 | 1031.9 | 1123.3 | 1099.8 | 978.4 | 672.2 | 485.9 | 692.4 | 70.6 |

Table 13--Volume of growing stock in the saw-log portion of sawtimber[1] trees on timberland by species and diameter class, Southeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | |
| Longleaf-slash pines | 164.7 | 47.8 | 49.6 | 34.3 | 20.3 | 6.5 | 3.2 | 2.9 | ... |
| Shortleaf-loblolly pine | 3814.5 | 487.2 | 668.8 | 706.8 | 675.6 | 453.3 | 332.8 | 460.3 | 29.7 |
| Cypress | 34.6 | 1.7 | 3.5 | 4.1 | 6.2 | 5.9 | 3.8 | 7.8 | 1.5 |
| Other softwoods | 7.6 | 1.7 | 1.2 | 2.1 | 1.8 | 0.4 | 0.3 | 0.3 | ... |
| Total softwoods | 4021.4 | 538.4 | 723.1 | 747.3 | 703.9 | 466.0 | 340.0 | 471.3 | 31.3 |
| Select white oaks | 102.1 | ... | 15.1 | 20.4 | 19.0 | 14.2 | 9.9 | 19.7 | 3.8 |
| Select red oaks | 94.9 | ... | 7.6 | 15.1 | 6.2 | 11.7 | 12.8 | 28.9 | 12.6 |
| Other white oaks | 119.3 | ... | 32.1 | 25.0 | 23.5 | 15.0 | 8.4 | 14.1 | 1.2 |
| Other red oaks | 422.4 | ... | 72.0 | 84.2 | 77.0 | 67.5 | 43.8 | 66.5 | 11.3 |
| Hickory | 44.5 | ... | 11.3 | 11.5 | 7.8 | 3.4 | 3.1 | 7.4 | ... |
| Hard maple | 0.6 | ... | 0.6 | ... | ... | ... | ... | ... | ... |
| Soft maple | 5.7 | ... | 2.9 | 0.7 | 0.8 | 1.0 | ... | 0.3 | ... |
| Beech | 24.2 | ... | 2.9 | 6.6 | 5.9 | 4.3 | 2.6 | 1.8 | ... |
| Sweetgum | 224.7 | ... | 60.8 | 49.5 | 36.9 | 24.0 | 23.5 | 24.6 | 5.3 |
| Tupelo-blackgum | 87.6 | ... | 14.4 | 22.3 | 20.1 | 11.7 | 9.4 | 9.7 | ... |
| Ash | 29.6 | ... | 7.4 | 8.4 | 6.7 | 5.3 | 0.5 | 1.1 | 0.2 |
| Cottonwood-aspen | 1.0 | ... | ... | 0.6 | ... | ... | ... | 0.5 | ... |
| Basswood | 0.3 | ... | ... | 0.3 | ... | ... | ... | ... | ... |
| Black walnut | 0.2 | ... | 0.2 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 95.2 | ... | 22.9 | 21.1 | 13.9 | 11.5 | 7.8 | 16.3 | 1.6 |
| Total hardwoods | 1252.2 | ... | 250.3 | 265.7 | 217.9 | 169.5 | 122.0 | 190.8 | 36.0 |
| All species | 5273.6 | 538.4 | 973.4 | 1013.0 | 921.8 | 635.6 | 462.0 | 662.2 | 67.2 |

[1] That part of the bole of sawtimber trees between the 1-foot stump and the saw-log top, including the portion of the forks large enough to contain a saw log.

Table 14--Volume of sawtimber on timberland by species and diameter class, Southeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million board feet | | | | | | | | |
| Longleaf-slash pines | 968.5 | 261.4 | 299.8 | 205.4 | 122.5 | 41.6 | 19.6 | 18.2 | ... |
| Shortleaf-loblolly pine | 23491.3 | 2710.9 | 4035.6 | 4369.3 | 4237.0 | 2845.3 | 2121.3 | 2968.9 | 203.1 |
| Cypress | 197.8 | 8.3 | 17.6 | 23.1 | 36.2 | 34.5 | 20.8 | 47.0 | 10.2 |
| Other softwoods | 39.3 | 8.5 | 6.0 | 10.4 | 10.5 | 1.8 | 1.0 | 1.1 | ... |
| Total softwoods | 24696.9 | 2989.2 | 4358.9 | 4608.3 | 4406.2 | 2923.2 | 2162.6 | 3035.2 | 213.3 |
| Select white oaks | 627.0 | ... | 87.9 | 118.0 | 117.0 | 92.7 | 61.8 | 126.9 | 22.8 |
| Select red oaks | 590.3 | ... | 40.3 | 87.0 | 35.6 | 72.1 | 79.7 | 191.3 | 84.4 |
| Other white oaks | 705.3 | ... | 176.5 | 143.8 | 138.9 | 91.7 | 53.5 | 92.8 | 8.1 |
| Other red oaks | 2546.1 | ... | 394.6 | 483.2 | 462.7 | 420.3 | 276.8 | 434.2 | 74.3 |
| Hickory | 269.9 | ... | 64.4 | 67.7 | 49.9 | 21.2 | 20.3 | 46.4 | ... |
| Hard maple | 3.7 | ... | 3.7 | ... | ... | ... | ... | ... | ... |
| Soft maple | 33.1 | ... | 15.9 | 4.6 | 4.3 | 6.2 | ... | 2.2 | ... |
| Beech | 148.8 | ... | 16.5 | 39.3 | 35.7 | 28.0 | 17.8 | 11.5 | ... |
| Sweetgum | 1322.6 | ... | 332.9 | 287.1 | 219.4 | 146.0 | 144.3 | 156.8 | 36.0 |
| Tupelo-blackgum | 498.7 | ... | 75.1 | 124.6 | 113.5 | 68.7 | 56.0 | 60.9 | ... |
| Ash | 168.9 | ... | 39.8 | 45.7 | 39.9 | 31.5 | 3.3 | 7.4 | 1.3 |
| Cottonwood-aspen | 6.7 | .. | ... | 3.3 | ... | ... | ... | 3.4 | ... |
| Basswood | 1.4 | ... | ... | 1.4 | ... | ... | ... | ... | ... |
| Black walnut | 1.0 | ... | 1.0 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 578.0 | ... | 127.5 | 124.7 | 85.5 | 74.1 | 48.6 | 105.5 | 12.2 |
| Total hardwoods | 7501.6 | ... | 1376.1 | 1530.2 | 1302.4 | 1052.5 | 761.9 | 1239.3 | 239.1 |
| All species | 32198.5 | 2989.2 | 5734.9 | 6138.6 | 5708.6 | 3975.7 | 2924.6 | 4274.5 | 452.5 |

Table 15--Volume of growing stock and sawtimber on timberland by county and species group, Southeast Texas, 1986

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Angelina | 553.0 | 64.2 | 390.0 | 0.4 | 34.1 | 64.3 | 2252.5 | 178.8 | 1794.4 | ... | 86.3 | 193.0 |
| Grimes | 94.6 | 4.0 | 42.8 | 5.2 | 5.8 | 36.7 | 312.0 | 12.4 | 138.4 | 15.0 | 9.8 | 136.4 |
| Hardin | 316.3 | 40.2 | 159.1 | 2.0 | 33.7 | 81.4 | 1154.5 | 90.5 | 687.5 | 6.1 | 67.2 | 303.3 |
| Harris | 203.9 | 6.5 | 133.0 | 0.9 | 32.4 | 31.1 | 884.8 | 22.9 | 632.9 | 5.1 | 109.4 | 114.5 |
| Houston | 561.4 | 33.4 | 358.5 | 3.2 | 65.6 | 100.6 | 2581.0 | 147.2 | 1904.1 | 14.1 | 169.6 | 345.9 |
| Jasper | 641.7 | 75.3 | 354.2 | 5.2 | 71.4 | 135.6 | 2617.9 | 130.3 | 1792.3 | 20.2 | 165.6 | 509.5 |
| Jefferson[3] | 107.5 | ... | 56.3 | 6.2 | 24.2 | 20.8 | 489.7 | ... | 305.6 | 24.2 | 82.9 | 77.0 |
| Leon | 138.7 | ... | 26.1 | 1.5 | 25.6 | 85.6 | 441.5 | ... | 126.8 | 6.6 | 77.0 | 231.1 |
| Liberty | 444.6 | 16.0 | 144.5 | 8.3 | 126.2 | 149.6 | 1737.3 | 22.7 | 766.9 | 35.8 | 380.7 | 531.2 |
| Madison | 53.3 | ... | 10.3 | 0.9 | 15.5 | 26.6 | 170.4 | ... | 42.7 | 1.0 | 33.6 | 93.2 |
| Montgomery | 647.1 | 18.7 | 475.9 | ... | 52.0 | 100.4 | 2879.9 | 35.1 | 2400.1 | ... | 116.5 | 328.1 |
| Newton | 540.9 | 104.6 | 247.1 | 4.6 | 73.1 | 111.4 | 2066.8 | 292.2 | 1156.4 | 22.2 | 223.9 | 372.2 |
| Orange | 149.7 | 9.8 | 76.7 | 2.9 | 14.2 | 46.1 | 689.6 | 45.5 | 414.9 | 11.2 | 40.8 | 177.2 |
| Polk | 570.7 | 26.1 | 422.6 | 2.0 | 44.8 | 75.2 | 2469.0 | 28.9 | 2050.6 | 9.1 | 137.4 | 243.0 |
| Sabine | 440.6 | 26.1 | 321.5 | ... | 24.3 | 68.6 | 2134.1 | 145.2 | 1669.0 | ... | 70.8 | 249.1 |
| San Augustine | 312.3 | 45.0 | 179.8 | ... | 34.2 | 53.2 | 1298.7 | 150.9 | 921.1 | ... | 72.1 | 154.7 |
| San Jacinto | 366.6 | 13.5 | 244.0 | 9.9 | 51.1 | 48.1 | 1554.9 | 30.2 | 1194.9 | 54.4 | 129.4 | 145.9 |
| Trinity | 454.0 | 22.9 | 346.2 | ... | 30.5 | 54.4 | 2202.4 | 10.6 | 1868.9 | ... | 104.4 | 218.4 |
| Tyler | 504.2 | 27.2 | 279.4 | 2.0 | 71.4 | 124.2 | 2113.9 | 26.9 | 1417.6 | 10.8 | 214.9 | 443.8 |
| Walker | 382.9 | 14.4 | 290.8 | 0.3 | 23.6 | 53.9 | 1667.6 | 17.6 | 1406.3 | 1.4 | 68.2 | 174.2 |
| Waller | 111.9 | ... | 81.0 | ... | 8.1 | 22.8 | 480.0 | ... | 380.6 | ... | 28.4 | 70.9 |
| All counties | 7595.9 | 548.1 | 4639.9 | 55.5 | 861.9 | 1490.6 | 32198.5 | 1387.9 | 23071.9 | 237.1 | 2389.1 | 5112.5 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Chambers included in Jefferson.

Table 16--Volume of timber on timberland by class of timber and species group, Southeast Texas, 1986

| Class of timber | All species | Softwood | | | Hardwood | |
|---|---|---|---|---|---|---|
| | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | |
| | Million cubic feet | | | | | |
| Sawtimber trees: | | | | | | |
| Saw-log portion | 5273.6 | 237.0 | 3742.1 | 42.2 | 405.5 | 846.7 |
| Upper-stem portion | 512.5 | 27.9 | 285.9 | 4.1 | 71.2 | 123.5 |
| Total | 5786.1 | 264.9 | 4028.0 | 46.3 | 476.7 | 970.2 |
| Poletimber trees | 1809.8 | 283.2 | 611.8 | 9.2 | 385.2 | 520.4 |
| All growing-stock trees | 7595.9 | 548.1 | 4639.9 | 55.5 | 861.9 | 1490.6 |
| Rough trees: | | | | | | |
| Sawtimber size | 430.2 | 6.8 | 31.3 | 6.0 | 103.6 | 282.5 |
| Poletimber size | 364.4 | 11.1 | 30.8 | 3.0 | 113.7 | 205.8 |
| Total | 794.6 | 17.8 | 62.1 | 9.0 | 217.3 | 488.3 |
| Rotten trees: | | | | | | |
| Sawtimber size | 149.9 | ... | 5.2 | 1.3 | 43.4 | 100.0 |
| Poletimber size | 12.7 | ... | 0.2 | 0.2 | 4.2 | 8.0 |
| Total | 162.6 | ... | 5.4 | 1.5 | 47.6 | 108.0 |
| Salvable dead trees: | | | | | | |
| Sawtimber size | 132.9 | 2.5 | 97.2 | ... | 4.1 | 29.0 |
| Poletimber size | 38.5 | 5.3 | 19.1 | 0.2 | 3.5 | 10.3 |
| Total | 171.3 | 7.8 | 116.3 | 0.2 | 7.6 | 39.3 |
| All classes | 8724.4 | 573.7 | 4823.8 | 66.2 | 1134.4 | 2126.3 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

l e 17--Volume of live trees and growing stock on timberland by ownership class and species group, Southeast Texas, 1986

| ership class | Live trees | | | | | | Growing stock | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | | | | | | |
| al forest | 1276.2 | 48.4 | 1030.3 | ... | 71.6 | 125.9 | 1222.3 | 47.8 | 1018.1 | ... | 56.4 | 100.0 |
| ublic | 81.4 | 11.4 | 42.6 | ... | 8.2 | 19.2 | 75.3 | 11.4 | 41.9 | ... | 6.8 | 15.3 |
| industry | 2996.4 | 401.5 | 1393.5 | 37.0 | 421.4 | 743.0 | 2650.1 | 390.5 | 1376.9 | 33.1 | 318.3 | 531.2 |
| industry-leased | 23.2 | ... | 0.2 | 0.7 | 1.1 | 21.1 | 19.3 | ... | 0.2 | 0.6 | 1.1 | 17.3 |
| rivate | 4175.8 | 104.6 | 2240.7 | 28.3 | 624.4 | 1177.7 | 3628.8 | 98.3 | 2202.6 | 21.7 | 479.3 | 826.8 |
| nerships | 8553.1 | 565.9 | 4707.4 | 66.0 | 1126.8 | 2086.9 | 7595.9 | 548.1 | 4639.9 | 55.5 | 861.9 | 1490.6 |

dwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, tonwood, red maple, basswood, aspen, and willow.

dwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, kories, and green and white ash.

a b l e 18--Average net annual growth of growing stock and sawtimber on timberland by county and species group, Southeast Texas, 1986

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| gelina | 27.7 | 5.8 | 18.2 | ... | 1.4 | 2.2 | 119.4 | 20.2 | 87.1 | ... | 3.7 | 8.4 |
| imes | 7.9 | 1.4 | 5.1 | 0.1 | 0.3 | 1.1 | 32.4 | 6.0 | 21.2 | 0.2 | 0.9 | 4.1 |
| rdin | 16.5 | 5.5 | 8.3 | ... | 0.8 | 1.8 | 67.5 | 16.7 | 37.8 | 0.2 | 1.5 | 11.4 |
| ris | 7.1 | ... | 6.3 | ... | 0.6 | 0.2 | 41.3 | ... | 37.8 | ... | 2.7 | 0.8 |
| uston | 26.4 | 3.6 | 16.0 | 0.1 | 1.5 | 5.2 | 148.9 | 18.1 | 103.1 | 0.9 | 4.1 | 22.6 |
| sper | 32.7 | 7.0 | 17.3 | ... | 3.0 | 5.4 | 141.2 | 13.6 | 96.0 | 0.5 | 7.5 | 23.7 |
| fferson[3] | 3.2 | ... | 2.7 | 0.2 | 0.3 | 0.1 | 23.3 | ... | 17.2 | 1.2 | 2.2 | 2.7 |
| on | 6.8 | ... | 2.9 | ... | 0.3 | 3.6 | 37.8 | ... | 16.4 | 0.5 | 2.0 | 19.0 |
| berty | 13.8 | 1.3 | 4.1 | 0.2 | 4.0 | 4.3 | 66.4 | 2.1 | 29.2 | 0.6 | 14.6 | 19.8 |
| dison | 1.1 | ... | 0.9 | ... | 0.2 | ... | 1.1 | ... | 3.5 | ... | -0.9 | -1.5 |
| ntgomery | 23.6 | 1.7 | 17.4 | ... | 2.0 | 2.5 | 130.2 | 3.7 | 108.2 | ... | 6.6 | 11.6 |
| rton | 29.9 | 10.1 | 12.5 | 0.1 | 1.9 | 5.3 | 121.8 | 28.7 | 67.7 | 0.7 | 5.5 | 19.1 |
| ange | 6.1 | 1.4 | 3.7 | 0.1 | 0.3 | 0.7 | 37.7 | 7.7 | 22.7 | 0.1 | 1.5 | 5.7 |
| lk | 35.5 | 6.1 | 23.5 | 0.1 | 1.9 | 3.9 | 158.8 | 16.1 | 124.8 | 0.4 | 4.9 | 12.6 |
| bine | 17.4 | 1.3 | 12.6 | ... | 0.9 | 2.7 | 100.9 | 7.0 | 79.0 | ... | 2.8 | 12.2 |
| n Augustine | 14.8 | 4.1 | 7.2 | ... | 1.4 | 2.1 | 64.9 | 11.5 | 43.7 | ... | 2.5 | 7.1 |
| n Jacinto | 17.9 | 3.2 | 10.9 | ... | 1.8 | 1.9 | 90.3 | 9.2 | 68.5 | 1.3 | 5.0 | 6.3 |
| inity | 22.8 | 4.6 | 16.4 | ... | 0.9 | 1.0 | 121.9 | 13.2 | 99.5 | ... | 4.0 | 5.3 |
| ler | 23.6 | 4.9 | 12.0 | 0.1 | 1.8 | 4.8 | 105.7 | 10.8 | 70.8 | 0.6 | 5.8 | 17.7 |
| lker | 17.7 | 1.9 | 13.5 | ... | 1.0 | 1.2 | 81.6 | 2.8 | 72.3 | ... | 2.2 | 4.3 |
| ller | 5.2 | ... | 3.8 | ... | 0.4 | 1.1 | 28.1 | ... | 23.1 | ... | 2.1 | 3.0 |
| l counties | 357.7 | 63.8 | 215.1 | 1.1 | 26.7 | 51.0 | 1721.2 | 187.5 | 1229.5 | 7.3 | 81.0 | 215.9 |

Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Chambers included in Jefferson.

Table 19--Average annual removals of growing stock and sawtimber by county and species group, Southeast Texas, 1986

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Angelina | 19.2 | 8.1 | 6.6 | ... | 0.9 | 3.5 | 91.0 | 46.6 | 31.8 | ... | 1.7 | 10.9 |
| Grimes | 10.7 | 4.1 | 6.2 | ... | ... | 0.4 | 48.0 | 18.0 | 28.9 | ... | ... | 1.1 |
| Hardin | 33.5 | 13.5 | 9.0 | ... | 2.1 | 8.8 | 120.0 | 52.5 | 40.1 | ... | 4.4 | 23.0 |
| Harris | 9.2 | ... | 6.7 | ... | 0.6 | 2.0 | 40.5 | ... | 33.5 | ... | 0.9 | 6.0 |
| Houston | 16.2 | 6.3 | 7.8 | ... | 0.4 | 1.7 | 69.8 | 29.4 | 36.5 | ... | 0.6 | 3.2 |
| Jasper | 24.8 | 3.8 | 16.6 | ... | 1.4 | 2.9 | 87.5 | 7.6 | 68.4 | ... | 3.8 | 7.6 |
| Jefferson[3] | 2.6 | ... | 1.9 | ... | 0.2 | 0.5 | 11.4 | ... | 7.7 | ... | 1.0 | 2.7 |
| Leon | 3.0 | ... | 1.9 | ... | 0.2 | 0.9 | 12.4 | ... | 9.2 | ... | 0.8 | 2.4 |
| Liberty | 8.6 | 0.3 | 3.6 | ... | 1.4 | 3.3 | 37.4 | 1.8 | 19.5 | ... | 4.6 | 11.6 |
| Madison | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Montgomery | 25.1 | 0.8 | 21.5 | ... | 0.6 | 2.2 | 109.7 | 3.8 | 99.1 | ... | 1.1 | 5.7 |
| Newton | 37.9 | 14.6 | 14.1 | ... | 1.6 | 7.6 | 160.7 | 63.8 | 69.8 | ... | 4.2 | 22.9 |
| Orange | 3.8 | 2.1 | 1.3 | ... | 0.2 | 0.2 | 16.7 | 8.7 | 6.6 | ... | 0.6 | 0.9 |
| Polk | 51.8 | 18.9 | 26.6 | 0.1 | 1.7 | 4.5 | 216.2 | 85.8 | 116.4 | ... | 2.5 | 11.6 |
| Sabine | 15.4 | 4.0 | 8.0 | ... | 1.0 | 2.4 | 64.5 | 18.1 | 37.9 | ... | 2.3 | 6.2 |
| San Augustine | 16.3 | 6.9 | 6.0 | ... | 0.9 | 2.4 | 57.8 | 23.0 | 25.4 | ... | 1.6 | 7.9 |
| San Jacinto | 24.9 | 8.2 | 14.2 | ... | 1.0 | 1.5 | 114.1 | 34.5 | 71.7 | ... | 2.9 | 5.0 |
| Trinity | 21.4 | 7.3 | 13.5 | ... | 0.3 | 0.2 | 94.6 | 31.1 | 62.8 | ... | 0.2 | 0.6 |
| Tyler | 38.0 | 12.9 | 16.8 | ... | 2.5 | 5.9 | 169.7 | 57.1 | 90.4 | ... | 5.5 | 16.7 |
| Walker | 18.1 | 3.5 | 13.3 | ... | 0.4 | 0.9 | 84.1 | 16.6 | 64.3 | ... | 1.6 | 1.6 |
| Waller | 3.4 | ... | 3.4 | ... | ... | ... | 15.6 | ... | 15.6 | ... | ... | ... |
| All counties | 383.8 | 115.3 | 199.0 | 0.1 | 17.5 | 52.0 | 1621.6 | 498.3 | 935.5 | ... | 40.2 | 147.5 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Chambers included in Jefferson.

Table 20--Average net annual growth and average annual removals of growing stock on timberland, Southeast Texas, 1986

| Species | Growth | Removals |
|---|---|---|
| | Million cubic feet | |
| Yellow pines | 278.9 | 314.2 |
| Other softwoods | 1.1 | 0.1 |
| Total softwoods | 280.0 | 314.3 |
| Select white-red oaks | 11.6 | 10.9 |
| Other white-red oaks | 32.9 | 34.8 |
| Hickory | 1.8 | 3.1 |
| Hard maple | ... | ... |
| Sweetgum | 17.8 | 11.1 |
| Ash-walnut-black cherry | 2.0 | 1.2 |
| Other hardwoods | 11.6 | 8.3 |
| Total hardwoods | 77.8 | 69.5 |
| All species | 357.7 | 383.8 |

Table 21--Average net annual growth and average annual removals of sawtimber on timberland, Southeast Texas, 1986

| Species | Growth | Removals |
|---|---|---|
| | Million board feet | |
| Yellow pines | 1417.0 | 1433.9 |
| Other softwoods | 7.3 | ... |
| Total softwoods | 1424.3 | 1433.9 |
| Select white-red oaks | 50.9 | 35.9 |
| Other white-red oaks | 142.7 | 96.0 |
| Hickory | 7.6 | 7.1 |
| Sweetgum | 51.3 | 26.0 |
| Ash-walnut-black cherry | 6.6 | 4.7 |
| Other hardwoods | 37.8 | 18.0 |
| Total hardwoods | 297.0 | 187.7 |
| All species | 1721.2 | 1621.6 |

Table 22--Average annual mortality of growing stock and sawtimber on timberland by species, Southeast Texas, 1986

| Species | Growing stock | Sawtimber |
|---|---|---|
| | Million cubic feet | Million board feet |
| Yellow pines | 43.5 | 158.4 |
| Other softwoods | 0.1 | 0.4 |
| Total softwoods | 43.6 | 158.7 |
| Select white-red oaks | 2.1 | 7.4 |
| Other white-red oaks | 12.5 | 42.3 |
| Hickory | 1.0 | 3.3 |
| Sweetgum | 2.9 | 6.5 |
| Ash-walnut-black cherry | 0.6 | 1.9 |
| Other hardwoods | 3.9 | 11.9 |
| Total hardwoods | 23.0 | 73.5 |
| All species | 66.6 | 232.2 |

Table 23--Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, Southeast Texas, 1986

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | | | | | | |
| National forest | 37.4 | 5.6 | 27.3 | ... | 1.6 | 2.9 | 26.7 | 11.6 | 13.2 | ... | 0.4 | 1.5 |
| Other public | 3.0 | 0.4 | 1.5 | ... | 0.5 | 0.6 | 1.0 | 0.1 | 0.9 | ... | ... | ... |
| Forest industry | 163.0 | 50.9 | 78.1 | 0.6 | 11.0 | 22.4 | 253.3 | 99.9 | 106.1 | 0.1 | 11.7 | 35.6 |
| Forest industry-leased | 0.5 | ... | ... | ... | ... | 0.4 | 1.2 | ... | 0.2 | ... | ... | 1.0 |
| Other private | 153.9 | 6.9 | 108.2 | 0.5 | 13.6 | 24.7 | 101.5 | 3.6 | 78.7 | ... | 5.4 | 13.9 |
| All ownerships | 357.7 | 63.8 | 215.1 | 1.1 | 26.7 | 51.0 | 383.8 | 115.3 | 199.0 | 0.1 | 17.5 | 52.0 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 24--Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, Southeast Texas, 1986

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million board feet | | | | | | | | | | | |
| National forest | 229.5 | 13.7 | 197.5 | ... | 6.6 | 11.7 | 124.9 | 49.9 | 68.7 | ... | 0.9 | 5.3 |
| Other public | 14.7 | 3.2 | 8.2 | ... | 1.2 | 2.1 | 5.0 | 0.8 | 4.2 | ... | ... | ... |
| Forest industry | 681.9 | 144.0 | 411.7 | 4.1 | 35.3 | 86.8 | 1064.7 | 433.3 | 506.5 | ... | 25.0 | 99.9 |
| Forest industry-leased | 2.0 | ... | 0.1 | ... | ... | 1.9 | 4.0 | ... | 1.0 | ... | ... | 3.0 |
| Other private | 793.1 | 26.6 | 612.0 | 3.2 | 37.9 | 113.5 | 423.1 | 14.4 | 355.1 | ... | 14.3 | 39.3 |
| All ownerships | 1721.2 | 187.5 | 1229.5 | 7.3 | 81.0 | 215.9 | 1621.6 | 498.3 | 935.5 | ... | 40.2 | 147.5 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 25--Volume of sawtimber on timberland by species and tree grade, Southeast Texas, 1986

| Species | All grades | Grade 1 | Grade 2 | Grade 3 | Grade 4 |
|---|---|---|---|---|---|
| | Million board feet | | | | |
| Yellow pines | 24459.8 | 4792.6 | 5965.0 | 13702.2 | ... |
| Cypress | 197.8 | 101.8 | 36.3 | 59.7 | ... |
| Redcedar | 39.3 | 39.3 | ... | ... | ... |
| Total softwoods | 24696.9 | 4933.7 | 6001.3 | 13761.9 | ... |
| Select white-red oaks | 1217.3 | 170.5 | 262.8 | 482.0 | 302.0 |
| Other white-red oaks | 3251.4 | 89.9 | 346.3 | 1350.2 | 1465.0 |
| Hickory | 269.9 | 21.2 | 43.1 | 131.2 | 74.3 |
| Hard maple | 3.7 | ... | ... | ... | 3.7 |
| Sweetgum | 1322.6 | 148.3 | 222.1 | 669.2 | 283.0 |
| Tupelo and blackgum | 498.7 | 67.2 | 170.0 | 183.7 | 77.8 |
| Ash-walnut-black cherry | 173.1 | 15.3 | 56.2 | 89.3 | 12.3 |
| Other hardwoods | 764.9 | 46.9 | 108.9 | 336.1 | 273.0 |
| Total hardwoods | 7501.6 | 559.3 | 1209.5 | 3241.7 | 2491.2 |
| All species | 32198.5 | 5493.0 | 7210.8 | 17003.5 | 2491.2 |

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Table 26--Volume of softwood growing stock on timberland by forest type, Southeast Texas, 1986

| County | Total | Forest type group | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress |
| | | Planted | Natural | Planted | Natural | | | |
| | Million cubic feet | | | | | | | |
| Angelina | 454.6 | 19.0 | ... | 44.7 | 331.2 | 47.6 | 7.5 | 4.7 |
| Grimes | 52.1 | ... | ... | 4.0 | 37.8 | 8.4 | 1.8 | ... |
| Hardin | 201.2 | 33.4 | 5.8 | 6.4 | 95.2 | 45.3 | 5.1 | 10.1 |
| Harris | 140.4 | ... | ... | 6.5 | 103.6 | 17.8 | 8.4 | 4.0 |
| Houston | 395.1 | 2.2 | ... | 29.6 | 283.2 | 66.7 | 12.8 | 0.6 |
| Jasper | 434.7 | 55.8 | 22.8 | 15.4 | 212.4 | 102.6 | 11.1 | 14.5 |
| Jefferson[1] | 62.5 | ... | ... | ... | 47.5 | 6.8 | 2.1 | 6.2 |
| Leon | 27.5 | ... | ... | ... | 19.5 | 3.3 | 4.6 | ... |
| Liberty | 168.8 | ... | ... | 16.6 | 52.2 | 41.5 | 44.2 | 14.4 |
| Madison | 11.2 | ... | ... | ... | 8.7 | 1.6 | 0.9 | ... |
| Montgomery | 494.7 | ... | ... | 18.7 | 351.9 | 102.2 | 17.8 | 4.0 |
| Newton | 356.3 | 37.9 | 22.0 | 57.3 | 164.5 | 45.8 | 23.6 | 5.2 |
| Orange | 89.4 | 4.9 | ... | ... | 32.6 | 33.5 | ... | 18.3 |
| Polk | 450.7 | ... | 20.2 | 22.9 | 345.5 | 56.0 | 1.2 | 4.8 |
| Sabine | 347.7 | 12.9 | ... | 12.5 | 258.4 | 46.6 | 17.3 | ... |
| San Augustine | 224.9 | ... | ... | 43.8 | 154.8 | 18.0 | 7.2 | 1.1 |
| San Jacinto | 267.4 | ... | ... | 8.8 | 185.7 | 51.2 | 12.2 | 9.5 |
| Trinity | 369.1 | ... | 10.7 | 21.8 | 291.4 | 40.5 | 3.2 | 1.6 |
| Tyler | 308.6 | 10.5 | 22.3 | 12.8 | 124.9 | 112.0 | 24.3 | 1.9 |
| Walker | 305.5 | ... | ... | 14.4 | 252.3 | 32.1 | 6.6 | ... |
| Waller | 81.0 | ... | ... | ... | 69.3 | 11.7 | ... | ... |
| All counties | 5243.4 | 176.7 | 103.8 | 336.3 | 3422.6 | 891.3 | 211.9 | 101.0 |

[1] Chambers included in Jefferson.

Table 27--Volume of hardwood growing stock on timberland by forest type, Southeast Texas, 1986

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Million cubic feet | | | | | | | | |
| Angelina | 98.4 | ... | ... | 3.7 | 39.6 | 28.8 | 9.7 | 16.5 | ... |
| Grimes | 42.5 | ... | ... | ... | 1.5 | 3.5 | 19.1 | 18.4 | ... |
| Hardin | 115.1 | 0.5 | ... | 0.4 | 9.6 | 28.2 | 33.0 | 43.5 | ... |
| Harris | 63.5 | ... | ... | 1.7 | 5.8 | 8.0 | 40.2 | 7.8 | ... |
| Houston | 166.2 | 0.4 | ... | 0.9 | 39.0 | 39.9 | 26.6 | 59.6 | ... |
| Jasper | 207.0 | 2.1 | 1.1 | 0.8 | 26.4 | 73.6 | 33.4 | 69.6 | ... |
| Jefferson[1] | 45.0 | ... | ... | ... | 5.0 | 7.5 | 4.3 | 28.1 | ... |
| Leon | 111.2 | ... | ... | ... | 1.2 | 0.4 | 75.4 | 30.6 | 3.7 |
| Liberty | 275.8 | ... | ... | ... | 4.5 | 34.1 | 93.3 | 143.9 | ... |
| Madison | 42.1 | ... | ... | ... | 0.7 | 1.7 | 28.9 | 10.9 | ... |
| Montgomery | 152.4 | ... | ... | 0.3 | 42.7 | 62.3 | 32.5 | 14.5 | ... |
| Newton | 184.6 | 1.5 | 1.7 | 4.5 | 27.7 | 27.5 | 73.9 | 47.8 | ... |
| Orange | 60.3 | ... | ... | ... | 9.0 | 14.5 | 9.9 | 26.9 | ... |
| Polk | 120.0 | ... | ... | 2.3 | 32.6 | 30.6 | 25.5 | 29.0 | ... |
| Sabine | 92.9 | ... | ... | 0.3 | 29.8 | 29.3 | 33.5 | ... | ... |
| San Augustine | 87.4 | ... | ... | 1.7 | 25.8 | 5.9 | 4.7 | 49.3 | ... |
| San Jacinto | 99.2 | ... | ... | 0.3 | 23.4 | 24.4 | 34.3 | 16.8 | ... |
| Trinity | 84.8 | ... | 0.3 | 1.0 | 22.2 | 14.3 | 18.8 | 28.3 | ... |
| Tyler | 195.6 | ... | 2.8 | 3.9 | 15.7 | 67.0 | 46.0 | 60.3 | ... |
| Walker | 77.4 | ... | ... | 1.8 | 22.3 | 13.8 | 23.4 | 16.2 | ... |
| Waller | 30.9 | ... | ... | ... | 11.0 | 3.9 | 8.7 | 7.3 | ... |
| All counties | 2352.5 | 4.4 | 5.9 | 23.5 | 395.4 | 519.3 | 675.2 | 725.1 | 3.7 |

[1] Chambers included in Jefferson.

Table 28--Volume of softwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, Southeast Texas, 1986

| County | Total | Forest type group | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress |
| | | Planted | Natural | Planted | Natural | | | |
| | Million cubic feet | | | | | | | |
| Angelina | 335.6 | 14.6 | ... | 16.3 | 255.2 | 38.4 | 6.9 | 4.1 |
| Grimes | 30.8 | ... | ... | 2.5 | 18.9 | 7.7 | 1.6 | ... |
| Hardin | 129.8 | 14.1 | 2.3 | 2.2 | 62.4 | 38.4 | 2.7 | 7.7 |
| Harris | 113.0 | ... | ... | 4.1 | 84.9 | 13.6 | 7.5 | 2.8 |
| Houston | 315.7 | 2.0 | ... | 21.2 | 231.9 | 53.1 | 7.5 | ... |
| Jasper | 320.0 | 17.4 | 19.1 | 5.3 | 169.3 | 88.1 | 8.2 | 12.5 |
| Jefferson[1] | 53.0 | ... | ... | ... | 40.7 | 6.7 | 1.3 | 4.4 |
| Leon | 22.7 | ... | ... | ... | 16.4 | 2.3 | 3.9 | ... |
| Liberty | 133.5 | ... | ... | 5.3 | 40.3 | 37.9 | 38.1 | 11.9 |
| Madison | 8.0 | ... | ... | ... | 6.6 | 1.0 | 0.3 | ... |
| Montgomery | 399.8 | ... | ... | 6.2 | 293.1 | 83.6 | 13.1 | 3.9 |
| Newton | 239.7 | 7.9 | 10.1 | 32.4 | 129.9 | 34.3 | 21.2 | 3.9 |
| Orange | 75.7 | 2.9 | ... | ... | 28.1 | 28.7 | ... | 15.9 |
| Polk | 334.9 | ... | 15.5 | 1.9 | 266.9 | 45.6 | 0.7 | 4.3 |
| Sabine | 295.4 | 12.1 | ... | 10.6 | 216.5 | 41.6 | 14.6 | ... |
| San Augustine | 174.1 | ... | ... | 25.2 | 127.8 | 14.6 | 5.9 | 0.5 |
| San Jacinto | 198.1 | ... | ... | ... | 142.4 | 38.3 | 9.1 | 8.4 |
| Trinity | 299.2 | ... | 6.9 | 2.3 | 256.8 | 29.2 | 2.9 | 1.2 |
| Tyler | 237.9 | 0.8 | 18.4 | 3.4 | 101.5 | 92.2 | 19.9 | 1.8 |
| Walker | 239.2 | ... | ... | 3.4 | 202.1 | 28.0 | 5.6 | ... |
| Waller | 65.4 | ... | ... | ... | 55.9 | 9.5 | ... | ... |
| All counties | 4021.4 | 71.9 | 72.3 | 142.4 | 2747.7 | 732.9 | 171.0 | 83.3 |

[1] Chambers included in Jefferson.

Table 29--Volume of hardwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, Southeast Texas, 1986

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Million cubic feet | | | | | | | | |
| Angelina | 48.3 | ... | ... | 1.9 | 14.9 | 16.7 | 4.0 | 10.8 | ... |
| Grimes | 24.4 | ... | ... | ... | 0.4 | 1.6 | 8.6 | 13.8 | ... |
| Hardin | 61.3 | ... | ... | 0.3 | 1.1 | 10.9 | 20.0 | 29.1 | ... |
| Harris | 38.4 | ... | ... | 1.1 | 3.9 | 1.5 | 27.5 | 4.4 | ... |
| Houston | 84.1 | 0.3 | ... | 0.4 | 14.8 | 18.3 | 10.8 | 39.5 | ... |
| Jasper | 112.7 | 0.6 | 0.3 | ... | 7.3 | 37.1 | 17.2 | 50.1 | ... |
| Jefferson[1] | 26.9 | ... | ... | ... | 2.0 | 3.8 | 3.0 | 18.2 | ... |
| Leon | 52.0 | ... | ... | ... | 0.3 | 0.4 | 32.2 | 16.0 | 3.1 |
| Liberty | 150.4 | ... | ... | ... | 1.7 | 14.2 | 42.9 | 91.6 | ... |
| Madison | 21.2 | ... | ... | ... | 0.3 | 0.4 | 14.3 | 6.2 | ... |
| Montgomery | 74.4 | ... | ... | ... | 19.8 | 31.4 | 16.9 | 6.3 | ... |
| Newton | 100.1 | 0.5 | 1.2 | 1.5 | 11.0 | 9.9 | 40.9 | 35.2 | ... |
| Orange | 35.1 | ... | ... | ... | 3.8 | 6.5 | 8.5 | 16.3 | ... |
| Polk | 63.8 | ... | ... | 1.1 | 15.0 | 11.0 | 15.2 | 21.6 | ... |
| Sabine | 53.7 | ... | ... | ... | 14.2 | 18.8 | 20.7 | ... | ... |
| San Augustine | 39.5 | ... | ... | 0.6 | 8.2 | 2.1 | 1.6 | 27.0 | ... |
| San Jacinto | 47.4 | ... | ... | ... | 8.8 | 6.5 | 20.7 | 11.3 | ... |
| Trinity | 51.0 | ... | ... | 0.6 | 9.1 | 6.7 | 10.6 | 24.0 | ... |
| Tyler | 109.7 | ... | 1.0 | 1.5 | 5.8 | 28.0 | 29.0 | 44.3 | ... |
| Walker | 41.1 | ... | ... | 1.4 | 8.9 | 7.8 | 12.8 | 10.4 | ... |
| Waller | 16.8 | ... | ... | ... | 2.8 | 1.8 | 7.5 | 4.8 | ... |
| All counties | 1252.2 | 1.4 | 2.6 | 10.3 | 154.2 | 235.3 | 364.8 | 480.5 | 3.1 |

[1] Chambers included in Jefferson.

Table 30--Volume of timber on timberland by county, class of timber and species group, Southeast Texas, 1986

| County | All classes | Growing stock | | Rough | | Rotten | |
|---|---|---|---|---|---|---|---|
| | | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| | Million cubic feet | | | | | | |
| Angelina | 586.0 | 454.6 | 98.4 | 4.9 | 22.7 | 0.2 | 5.1 |
| Grimes | 118.3 | 52.1 | 42.5 | 2.0 | 20.1 | ... | 1.7 |
| Hardin | 378.2 | 201.2 | 115.1 | 7.6 | 45.2 | ... | 9.1 |
| Harris | 229.2 | 140.4 | 63.5 | 3.6 | 18.4 | ... | 3.2 |
| Houston | 627.7 | 395.1 | 166.2 | 11.7 | 43.9 | 0.6 | 10.1 |
| Jasper | 708.4 | 434.7 | 207.0 | 4.4 | 45.7 | 1.5 | 15.1 |
| Jefferson[1] | 123.2 | 62.5 | 45.0 | 0.2 | 13.5 | ... | 2.0 |
| Leon | 190.0 | 27.5 | 111.2 | 0.9 | 46.6 | ... | 3.7 |
| Liberty | 548.0 | 168.8 | 275.8 | 3.5 | 88.5 | ... | 11.5 |
| Madison | 69.1 | 11.2 | 42.1 | 0.1 | 13.5 | ... | 2.1 |
| Montgomery | 717.8 | 494.7 | 152.4 | 7.1 | 45.4 | 3.3 | 14.9 |
| Newton | 624.7 | 356.3 | 184.6 | 7.6 | 59.6 | ... | 16.6 |
| Orange | 184.1 | 89.4 | 60.3 | 5.4 | 22.1 | 0.4 | 6.6 |
| Polk | 623.9 | 450.7 | 120.0 | 5.5 | 40.5 | ... | 7.3 |
| Sabine | 463.2 | 347.7 | 92.9 | 1.8 | 14.2 | ... | 6.6 |
| San Augustine | 349.2 | 224.9 | 87.4 | 2.6 | 25.8 | ... | 8.5 |
| San Jacinto | 409.7 | 267.4 | 99.2 | 4.8 | 28.9 | 0.7 | 8.6 |
| Trinity | 495.9 | 369.1 | 84.8 | 7.5 | 30.4 | ... | 4.1 |
| Tyler | 567.3 | 308.6 | 195.6 | 4.8 | 46.2 | ... | 12.1 |
| Walker | 413.6 | 305.5 | 77.4 | 2.9 | 22.8 | 0.3 | 4.8 |
| Waller | 125.7 | 81.0 | 30.9 | ... | 11.8 | ... | 2.0 |
| All counties | 8553.1 | 5243.4 | 2352.5 | 89.0 | 705.6 | 6.9 | 155.6 |

[1] Chambers included in Jefferson.

Table 31--Number of live trees on timberland by detailed species and diameter class, Southeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| Longleaf pine | 18068 | 4340 | 6423 | 2115 | 1242 | 1243 | 1185 | 867 | 439 | 140 | 49 | 23 | ... |
| Slash pine | 90165 | 34281 | 23602 | 15411 | 11052 | 3793 | 1448 | 450 | 113 | ... | ... | 14 | ... |
| Shortleaf pine | 120177 | 38705 | 20942 | 16093 | 14813 | 10209 | 8327 | 5390 | 3546 | 1404 | 529 | 219 | ... |
| Loblolly pine | 960172 | 464409 | 211846 | 115113 | 59580 | 35511 | 25797 | 18490 | 12975 | 7304 | 4428 | 4540 | 177 |
| Redcedar | 10122 | 5807 | 1781 | 414 | 1049 | 431 | 225 | 231 | 96 | 58 | 12 | 17 | ... |
| Cypress | 4156 | ... | 601 | 1285 | 1100 | 224 | 255 | 200 | 173 | 127 | 70 | 111 | 8 |
| Total softwoods | 1202860 | 547543 | 265195 | 150431 | 88836 | 51411 | 37238 | 25630 | 17343 | 9034 | 5089 | 4925 | 185 |
| Select white oaks | 48094 | 24241 | 8501 | 5383 | 3263 | 2176 | 1165 | 1211 | 890 | 465 | 266 | 492 | 41 |
| Select red oaks | 55455 | 38929 | 6410 | 3837 | 1808 | 1364 | 812 | 780 | 294 | 335 | 334 | 441 | 111 |
| Other white oaks | 150171 | 68971 | 27784 | 21378 | 12181 | 8670 | 4424 | 2754 | 1811 | 957 | 587 | 577 | 77 |
| Other red oaks | 343621 | 215978 | 45631 | 24652 | 18655 | 12891 | 8700 | 6017 | 4302 | 2763 | 1610 | 2117 | 306 |
| Sweet pecan | 608 | ... | ... | 210 | 56 | 184 | 33 | 48 | 15 | 28 | ... | 34 | ... |
| Water hickory | 12245 | 6573 | 2775 | 705 | 754 | 600 | 303 | 270 | 129 | 34 | 51 | 46 | 4 |
| Other hickories | 47804 | 28074 | 8504 | 3516 | 2850 | 2342 | 1250 | 667 | 313 | 174 | 43 | 65 | 4 |
| Persimmon | 14438 | 12011 | 1745 | 367 | 135 | 99 | 49 | 23 | ... | ... | 10 | ... | ... |
| Hard maple | 365 | ... | ... | 158 | 53 | 39 | 87 | ... | ... | 27 | ... | ... | ... |
| Soft maple | 81810 | 60590 | 10952 | 5382 | 2950 | 1027 | 470 | 185 | 99 | 100 | 11 | 45 | ... |
| Boxelder | 564 | 564 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Beech | 5028 | 1472 | 1030 | ... | 272 | 472 | 444 | 456 | 360 | 213 | 107 | 184 | 19 |
| Sweetgum | 453129 | 296998 | 77512 | 36925 | 18930 | 10726 | 5938 | 2707 | 1513 | 717 | 604 | 498 | 61 |
| Blackgum | 179674 | 132560 | 25556 | 10315 | 5129 | 2156 | 1301 | 1163 | 771 | 242 | 179 | 260 | 42 |
| Other gums/tupelos | 10761 | 1663 | 4807 | 1263 | 793 | 369 | 568 | 533 | 325 | 236 | 107 | 93 | 4 |
| White ash | 28492 | 22478 | 2266 | 1673 | 344 | 694 | 358 | 323 | 188 | 126 | 10 | 31 | ... |
| Other ashes | 39301 | 29903 | 3773 | 2337 | 1236 | 576 | 533 | 373 | 203 | 182 | 90 | 80 | 14 |
| Sycamore | 4651 | 2208 | 1069 | 230 | 296 | 329 | 118 | 84 | 82 | 17 | 40 | 159 | 19 |
| Cottonwood | 1113 | 543 | 543 | ... | ... | ... | ... | 23 | ... | ... | ... | 5 | ... |
| Basswood | 3426 | 1092 | 2183 | ... | ... | 70 | ... | 69 | 12 | ... | ... | ... | ... |
| Magnolia | 10315 | 8036 | 1065 | ... | 113 | 315 | 192 | 242 | 170 | 109 | 20 | 50 | 4 |
| Sweetbay | 41804 | 29170 | 8364 | 1753 | 1216 | 698 | 324 | 145 | 47 | 37 | 41 | 8 | ... |
| Willow | 6891 | 5743 | 574 | 241 | 149 | 94 | 61 | ... | 18 | ... | ... | 9 | ... |
| Black walnut | 1922 | 1698 | ... | 88 | ... | 89 | 28 | 16 | ... | ... | ... | ... | 3 |
| Black cherry | 7383 | 5915 | 1028 | 109 | 318 | ... | ... | ... | ... | 12 | ... | ... | ... |
| American elm | 15260 | 9179 | 3152 | 681 | 695 | 594 | 363 | 205 | 120 | 112 | 87 | 57 | 13 |
| Other elms | 167577 | 124167 | 23569 | 10221 | 4720 | 2470 | 1080 | 722 | 309 | 164 | 78 | 70 | 8 |
| River birch | 4912 | 3785 | 535 | 222 | 199 | ... | 60 | 20 | 31 | 25 | ... | 33 | ... |
| Hackberry | 28652 | 10879 | 10525 | 3300 | 1587 | 795 | 761 | 377 | 178 | 143 | 40 | 66 | ... |
| Other locusts | 3185 | 2293 | ... | 325 | 205 | 128 | 148 | 44 | 17 | 25 | ... | ... | ... |
| Sassafras | 20827 | 16730 | 2117 | 1415 | 344 | 170 | 26 | 24 | ... | ... | ... | ... | ... |
| Dogwood | 63048 | 50413 | 10728 | 1632 | 274 | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 77509 | 56642 | 14355 | 4132 | 1516 | 535 | 245 | 20 | 54 | ... | 10 | ... | ... |
| Other commercial | 43029 | 36248 | 4719 | 1288 | 380 | 214 | 113 | 20 | 21 | 27 | ... | ... | ... |
| Total hardwoods | 1973063 | 1305748 | 311774 | 143739 | 81424 | 50885 | 29957 | 19520 | 12272 | 7270 | 4323 | 5421 | 731 |
| Noncommercial | 351486 | 266380 | 57056 | 18568 | 6374 | 1830 | 681 | 346 | 179 | 35 | 8 | 29 | ... |
| All species | 3527410 | 2119671 | 634025 | 312739 | 176634 | 104126 | 67876 | 45495 | 29794 | 16338 | 9421 | 10375 | 916 |

Table 32--Number of growing stock trees on timberland by detailed species and diameter class, Southeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | |
| Longleaf pine | 7079 | 2015 | 1187 | 1208 | 1185 | 844 | 439 | 127 | 49 | 23 | ... |
| Slash pine | 30154 | 14089 | 10732 | 3336 | 1419 | 450 | 113 | ... | ... | 14 | ... |
| Shortleaf pine | 56894 | 13751 | 13769 | 10054 | 8327 | 5366 | 3527 | 1353 | 529 | 219 | ... |
| Loblolly pine | 272412 | 107971 | 57144 | 34411 | 25451 | 18372 | 12912 | 7205 | 4368 | 4415 | 165 |
| Redcedar | 1537 | 291 | 591 | 281 | 102 | 159 | 77 | 13 | 12 | 9 | ... |
| Cypress | 3226 | 1285 | 857 | 181 | 255 | 180 | 173 | 127 | 70 | 89 | 8 |
| Total softwoods | 371302 | 139402 | 84281 | 49471 | 36740 | 25371 | 17241 | 8825 | 5029 | 4769 | 173 |
| Select white oaks | 12314 | 3802 | 2862 | 2008 | 1023 | 1022 | 673 | 366 | 225 | 305 | 27 |
| Select red oaks | 8202 | 3148 | 1360 | 1125 | 676 | 678 | 219 | 296 | 255 | 363 | 82 |
| Other white oaks | 34442 | 12624 | 8713 | 6298 | 2897 | 1613 | 1131 | 576 | 259 | 317 | 13 |
| Other red oaks | 59142 | 17694 | 14080 | 10306 | 5888 | 4318 | 2874 | 1862 | 987 | 1038 | 96 |
| Sweet pecan | 367 | 96 | 56 | 126 | ... | 48 | 15 | ... | ... | 26 | ... |
| Water hickory | 1446 | 130 | 253 | 509 | 188 | 191 | 80 | 23 | 31 | 41 | ... |
| Other hickories | 6145 | 1722 | 1546 | 1383 | 728 | 421 | 213 | 59 | 34 | 40 | ... |
| Persimmon | 426 | 268 | 61 | 48 | 49 | ... | ... | ... | ... | ... | ... |
| Hard maple | 228 | 158 | ... | 39 | 31 | ... | ... | ... | ... | ... | ... |
| Soft maple | 5551 | 2615 | 2102 | 492 | 233 | 39 | 34 | 27 | ... | 8 | ... |
| Beech | 1318 | ... | 128 | 237 | 271 | 298 | 206 | 97 | 48 | 32 | ... |
| Sweetgum | 58457 | 24600 | 15660 | 8532 | 4962 | 2195 | 1127 | 550 | 476 | 317 | 39 |
| Blackgum | 13956 | 5899 | 3844 | 1549 | 936 | 799 | 509 | 165 | 131 | 125 | ... |
| Other gums/tupelos | 2508 | 472 | 701 | 292 | 276 | 311 | 224 | 149 | 65 | 17 | ... |
| White ash | 2262 | 1002 | 227 | 405 | 250 | 184 | 132 | 50 | ... | 11 | ... |
| Other ashes | 3409 | 1229 | 840 | 403 | 352 | 292 | 131 | 121 | 20 | 15 | 4 |
| Sycamore | 1030 | 230 | 162 | 244 | 118 | 63 | 50 | 17 | 40 | 102 | 4 |
| Cottonwood | 28 | ... | ... | ... | ... | 23 | ... | ... | ... | 5 | ... |
| Basswood | 22 | ... | ... | ... | ... | 22 | ... | ... | ... | ... | ... |
| Magnolia | 656 | ... | 56 | 244 | 117 | 121 | 76 | 25 | 11 | 6 | ... |
| Sweetbay | 2295 | 532 | 1066 | 416 | 216 | 41 | 16 | ... | ... | 8 | ... |
| Willow | 504 | 241 | 88 | 94 | 61 | ... | 18 | ... | ... | ... | ... |
| Black walnut | 80 | ... | ... | 52 | 28 | ... | ... | ... | ... | ... | ... |
| Black cherry | 251 | ... | 239 | ... | ... | ... | ... | 12 | ... | ... | ... |
| American elm | 1839 | 305 | 482 | 324 | 307 | 163 | 84 | 98 | 64 | 8 | 4 |
| Other elms | 13010 | 6616 | 3072 | 1722 | 671 | 523 | 194 | 128 | 39 | 44 | ... |
| River birch | 372 | 133 | 148 | ... | ... | 20 | 31 | 25 | ... | 15 | ... |
| Hackberry | 2779 | 1294 | 446 | 376 | 312 | 157 | 87 | 63 | 19 | 24 | ... |
| Other locusts | 541 | 325 | 81 | 79 | ... | 44 | ... | 12 | ... | ... | ... |
| Sassafras | 1226 | 830 | 247 | 123 | 26 | ... | ... | ... | ... | ... | ... |
| Dogwood | 687 | 614 | 73 | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 2735 | 1622 | 792 | 209 | 93 | 20 | ... | ... | ... | ... | ... |
| Other commercial | 181 | 140 | ... | 41 | ... | ... | ... | ... | ... | ... | ... |
| Total hardwoods | 238405 | 88341 | 59384 | 37678 | 20709 | 13605 | 8125 | 4722 | 2705 | 2868 | 268 |
| All species | 609708 | 227743 | 143666 | 87149 | 57449 | 38975 | 25366 | 13548 | 7734 | 7637 | 441 |

Table 33--Volume of growing stock on timberland by species and diameter class, Southeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | | | |
| Longleaf pine | 108.0 | 6.4 | 8.0 | 16.3 | 25.1 | 23.5 | 16.6 | 6.8 | 3.3 | 1.9 | ... |
| Slash pine | 197.6 | 38.6 | 67.5 | 43.1 | 29.7 | 13.0 | 4.7 | ... | ... | 1.1 | ... |
| Shortleaf pine | 986.6 | 47.1 | 107.8 | 151.8 | 196.7 | 181.4 | 165.3 | 77.4 | 39.5 | 19.5 | ... |
| Loblolly pine | 3895.8 | 269.6 | 350.1 | 447.8 | 538.8 | 566.8 | 540.1 | 392.6 | 304.6 | 454.8 | 30.5 |
| Redcedar | 11.8 | 0.6 | 2.2 | 2.3 | 1.4 | 2.3 | 2.0 | 0.4 | 0.3 | 0.3 | ... |
| Cypress | 43.7 | 2.3 | 4.1 | 2.3 | 4.2 | 4.6 | 6.7 | 6.0 | 3.9 | 8.0 | 1.5 |
| Total softwoods | 5243.4 | 364.6 | 539.6 | 663.6 | 796.0 | 791.6 | 735.4 | 483.3 | 351.6 | 485.6 | 32.1 |
| Select white oaks | 164.3 | 10.2 | 15.7 | 20.8 | 18.8 | 23.9 | 21.7 | 15.7 | 11.2 | 22.5 | 3.8 |
| Select red oaks | 136.3 | 8.0 | 7.6 | 12.3 | 11.3 | 17.3 | 6.8 | 12.9 | 14.2 | 32.2 | 13.8 |
| Other white oaks | 251.3 | 27.8 | 41.0 | 50.2 | 37.3 | 27.1 | 26.0 | 16.3 | 8.8 | 15.4 | 1.3 |
| Other red oaks | 719.4 | 48.6 | 77.4 | 106.3 | 94.1 | 97.8 | 85.8 | 76.5 | 49.4 | 71.2 | 12.1 |
| Sweet pecan | 4.7 | 0.3 | 0.3 | 1.0 | ... | 1.0 | 0.3 | ... | ... | 1.8 | ... |
| Water hickory | 22.3 | 0.3 | 1.8 | 5.1 | 3.1 | 4.1 | 2.3 | 1.2 | 1.4 | 2.9 | ... |
| Other hickories | 53.2 | 3.7 | 7.0 | 10.4 | 10.1 | 8.4 | 5.9 | 2.4 | 2.0 | 3.3 | ... |
| Persimmon | 2.1 | 0.6 | 0.4 | 0.3 | 0.7 | ... | ... | ... | ... | ... | ... |
| Hard maple | 1.5 | 0.3 | ... | 0.5 | 0.7 | ... | ... | ... | ... | ... | ... |
| Soft maple | 32.1 | 8.4 | 11.4 | 5.0 | 3.8 | 1.1 | 0.9 | 1.2 | ... | 0.3 | ... |
| Beech | 29.8 | ... | 0.6 | 2.7 | 3.6 | 7.3 | 6.2 | 4.5 | 2.9 | 2.0 | ... |
| Sweetgum | 508.0 | 60.9 | 89.0 | 90.1 | 86.2 | 58.6 | 40.1 | 25.7 | 25.8 | 26.0 | 5.6 |
| Blackgum | 119.8 | 13.4 | 19.1 | 16.1 | 14.7 | 18.6 | 15.4 | 6.6 | 6.5 | 9.4 | ... |
| Other gums/tupelos | 37.1 | 1.2 | 3.5 | 2.8 | 4.7 | 7.4 | 7.0 | 6.4 | 3.2 | 0.9 | ... |
| White ash | 21.8 | 2.4 | 1.2 | 4.4 | 3.9 | 4.0 | 3.6 | 1.9 | ... | 0.3 | ... |
| Other ashes | 34.1 | 3.0 | 4.9 | 4.0 | 5.6 | 6.3 | 4.1 | 4.2 | 0.7 | 0.9 | 0.3 |
| Sycamore | 22.0 | 0.8 | 0.9 | 2.3 | 2.2 | 1.0 | 1.8 | 0.3 | 1.9 | 10.3 | 0.4 |
| Cottonwood | 1.1 | ... | ... | ... | ... | 0.6 | ... | ... | ... | 0.5 | ... |
| Basswood | 0.3 | ... | ... | ... | ... | 0.3 | ... | ... | ... | ... | ... |
| Magnolia | 11.5 | ... | 0.4 | 2.3 | 1.6 | 2.7 | 2.5 | 1.1 | 0.6 | 0.5 | ... |
| Sweetbay | 17.4 | 2.0 | 6.5 | 3.5 | 3.3 | 1.0 | 0.5 | ... | ... | 0.7 | ... |
| Willow | 3.2 | 0.7 | 0.3 | 0.6 | 1.0 | ... | 0.6 | ... | ... | ... | ... |
| Black walnut | 0.5 | ... | ... | 0.3 | 0.2 | ... | ... | ... | ... | ... | ... |
| Black cherry | 2.1 | ... | 1.6 | ... | ... | ... | ... | 0.5 | ... | ... | ... |
| American elm | 24.1 | 0.7 | 2.5 | 2.7 | 4.2 | 3.9 | 2.2 | 3.1 | 2.8 | 0.8 | 1.2 |
| Other elms | 83.3 | 14.8 | 15.7 | 16.9 | 10.1 | 11.0 | 5.2 | 4.8 | 1.9 | 2.8 | ... |
| River birch | 4.0 | 0.3 | 0.8 | ... | ... | 0.3 | 1.0 | 0.9 | ... | 0.7 | ... |
| Hackberry | 23.1 | 3.2 | 1.8 | 3.2 | 4.3 | 2.9 | 2.9 | 2.5 | 1.0 | 1.3 | ... |
| Other locusts | 3.4 | 0.9 | 0.3 | 0.9 | ... | 0.9 | ... | 0.3 | ... | ... | ... |
| Sassafras | 4.7 | 1.7 | 1.6 | 1.2 | 0.3 | ... | ... | ... | ... | ... | ... |
| Dogwood | 1.3 | 1.0 | 0.3 | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 12.3 | 4.2 | 3.9 | 2.2 | 1.4 | 0.5 | ... | ... | ... | ... | ... |
| Other commercial | 0.4 | 0.2 | ... | 0.2 | ... | ... | ... | ... | ... | ... | ... |
| Total hardwoods | 2352.5 | 219.8 | 317.5 | 368.3 | 327.3 | 308.2 | 242.9 | 188.9 | 134.3 | 206.8 | 38.5 |
| All species | 7595.9 | 584.4 | 857.1 | 1031.9 | 1123.3 | 1099.8 | 978.4 | 672.2 | 485.9 | 692.4 | 70.6 |

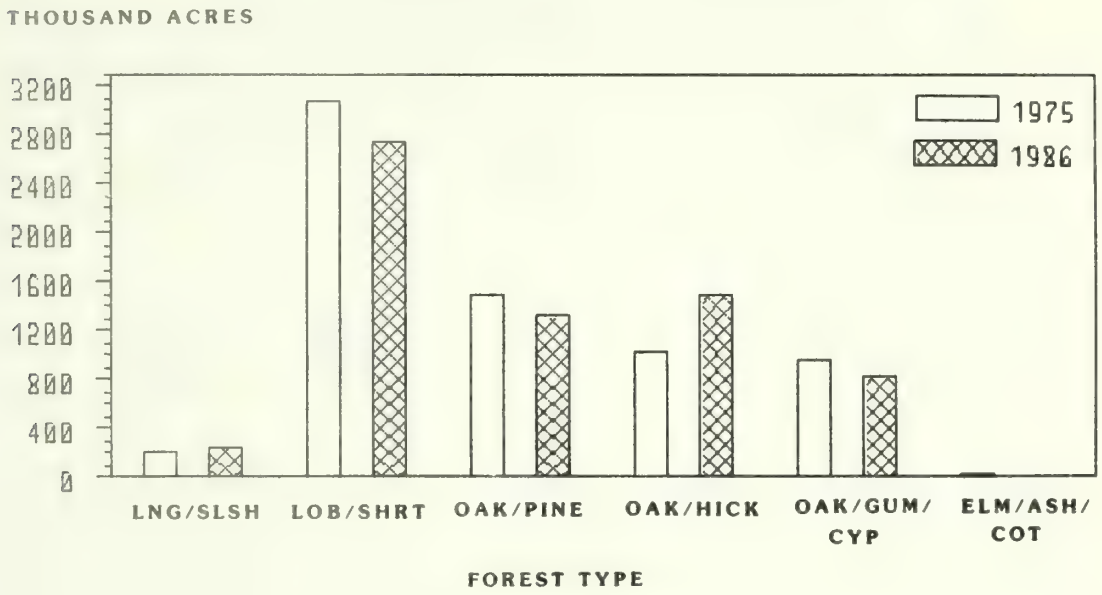
Table 34--Volume of growing stock in the saw-log portion of sawtimber trees on timberland by detailed species and diameter class, Southeast Texas, 1986

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | |
| Longleaf pine | 85.6 | 13.1 | 22.7 | 22.2 | 16.0 | 6.5 | 3.2 | 1.9 | ... |
| Slash pine | 79.1 | 34.7 | 26.9 | 12.1 | 4.3 | ... | ... | 1.0 | ... |
| Shortleaf pine | 767.5 | 124.9 | 180.1 | 172.5 | 158.1 | 74.7 | 38.3 | 18.9 | ... |
| Loblolly pine | 3047.0 | 362.3 | 488.7 | 534.3 | 517.5 | 378.6 | 294.5 | 441.4 | 29.7 |
| Redcedar | 7.6 | 1.7 | 1.2 | 2.1 | 1.8 | 0.4 | 0.3 | 0.3 | ... |
| Cypress | 34.6 | 1.7 | 3.5 | 4.1 | 6.2 | 5.9 | 3.8 | 7.8 | 1.5 |
| Total softwoods | 4021.4 | 538.4 | 723.1 | 747.3 | 703.9 | 466.0 | 340.0 | 471.3 | 31.3 |
| Select white oaks | 102.1 | ... | 15.1 | 20.4 | 19.0 | 14.2 | 9.9 | 19.7 | 3.8 |
| Select red oaks | 94.9 | ... | 7.6 | 15.1 | 6.2 | 11.7 | 12.8 | 28.9 | 12.6 |
| Other white oaks | 119.3 | ... | 32.1 | 25.0 | 23.5 | 15.0 | 8.4 | 14.1 | 1.2 |
| Other red oaks | 422.4 | ... | 72.0 | 84.2 | 77.0 | 67.5 | 43.8 | 66.5 | 11.3 |
| Sweet pecan | 2.8 | ... | ... | 0.8 | 0.2 | ... | ... | 1.8 | ... |
| Water hickory | 13.5 | ... | 2.8 | 3.4 | 2.2 | 1.2 | 1.3 | 2.7 | ... |
| Other hickories | 28.2 | ... | 8.5 | 7.3 | 5.5 | 2.2 | 1.8 | 2.9 | ... |
| Persimmon | 0.5 | ... | 0.5 | ... | ... | ... | ... | ... | ... |
| Hard maple | 0.6 | ... | 0.6 | ... | ... | ... | ... | ... | ... |
| Soft maple | 5.7 | ... | 2.9 | 0.7 | 0.8 | 1.0 | ... | 0.3 | ... |
| Beech | 24.2 | ... | 2.9 | 6.6 | 5.9 | 4.3 | 2.6 | 1.8 | ... |
| Sweetgum | 224.7 | ... | 60.8 | 49.5 | 36.9 | 24.0 | 23.5 | 24.6 | 5.3 |
| Blackgum | 62.4 | ... | 11.2 | 16.1 | 14.0 | 6.0 | 6.3 | 8.8 | ... |
| Other gums/tupelos | 25.3 | ... | 3.2 | 6.2 | 6.1 | 5.7 | 3.1 | 0.9 | ... |
| White ash | 12.0 | ... | 3.3 | 3.4 | 3.2 | 1.8 | ... | 0.3 | ... |
| Other ashes | 17.6 | ... | 4.1 | 5.0 | 3.5 | 3.5 | 0.5 | 0.8 | 0.2 |
| Sycamore | 16.6 | ... | 1.5 | 0.9 | 1.7 | 0.2 | 1.9 | 10.1 | 0.4 |
| Cottonwood | 1.0 | ... | ... | 0.6 | ... | ... | ... | 0.5 | ... |
| Basswood | 0.3 | ... | ... | 0.3 | ... | ... | ... | ... | ... |
| Magnolia | 7.9 | ... | 1.2 | 2.5 | 2.0 | 1.1 | 0.6 | 0.5 | ... |
| Sweetbay | 4.4 | ... | 2.6 | 0.8 | 0.4 | ... | ... | 0.5 | ... |
| Willow | 1.1 | ... | 0.7 | ... | 0.4 | ... | ... | ... | ... |
| Black walnut | 0.2 | ... | 0.2 | ... | ... | ... | ... | ... | ... |
| Black cherry | 0.5 | ... | ... | ... | ... | 0.5 | ... | ... | ... |
| American elm | 15.6 | ... | 3.5 | 3.5 | 1.6 | 2.5 | 2.5 | 0.8 | 1.2 |
| Other elms | 30.6 | ... | 8.0 | 9.5 | 4.6 | 4.3 | 1.9 | 2.4 | ... |
| River birch | 2.4 | ... | ... | 0.3 | 0.8 | 0.6 | ... | 0.7 | ... |
| Hackberry | 12.6 | ... | 3.5 | 2.3 | 2.4 | 2.0 | 1.0 | 1.3 | ... |
| Other locusts | 1.2 | ... | ... | 0.9 | ... | 0.3 | ... | ... | ... |
| Sassafras | 0.3 | ... | 0.3 | ... | ... | ... | ... | ... | ... |
| Holly | 1.6 | ... | 1.2 | 0.4 | ... | ... | ... | ... | ... |
| Total hardwoods | 1252.2 | ... | 250.3 | 265.7 | 217.9 | 169.5 | 122.0 | 190.8 | 36.0 |
| All species | 5273.6 | 538.4 | 973.4 | 1013.0 | 921.8 | 635.6 | 462.0 | 662.2 | 67.2 |

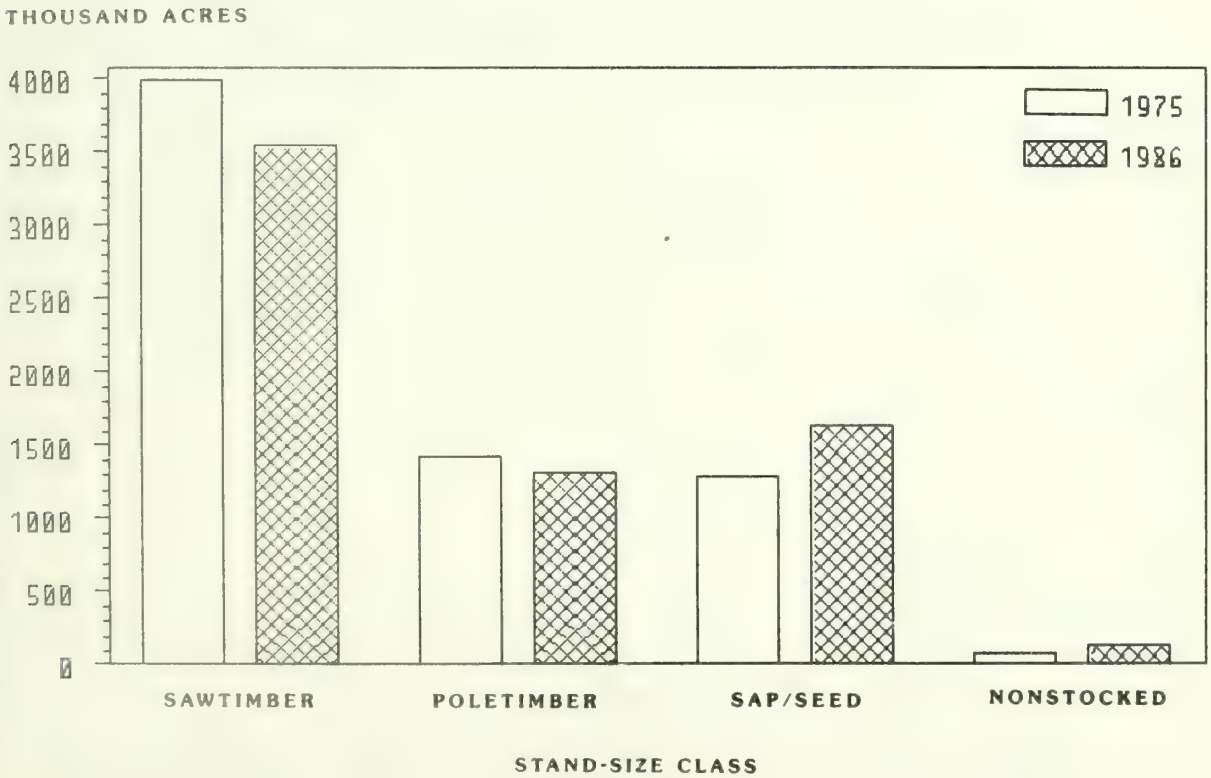
Table 35--Volume of timber on timberland by species and class of timber, Southeast Texas, 1986

| Species | All live | Growing stock | Rough | Rotten |
|---|---|---|---|---|
| | Million cubic feet | | | |
| Longleaf pine | 110.2 | 108.0 | 2.3 | ... |
| Slash pine | 207.9 | 197.6 | 10.3 | ... |
| Shortleaf pine | 1003.1 | 986.6 | 15.7 | 0.9 |
| Loblolly pine | 3952.1 | 3895.8 | 51.8 | 4.6 |
| Redcedar | 18.2 | 11.8 | 6.3 | ... |
| Cypress | 47.9 | 43.7 | 2.6 | 1.5 |
| Total softwoods | 5339.3 | 5243.4 | 89.0 | 6.9 |
| Select white oaks | 196.7 | 164.3 | 25.6 | 6.7 |
| Select red oaks | 158.5 | 136.3 | 16.9 | 5.3 |
| Other white oaks | 350.7 | 251.3 | 86.1 | 13.3 |
| Other red oaks | 959.8 | 719.4 | 188.9 | 51.6 |
| Sweet pecan | 6.9 | 4.7 | 2.2 | ... |
| Water hickory | 30.8 | 22.3 | 7.8 | 0.7 |
| Other hickories | 78.7 | 53.2 | 20.3 | 5.2 |
| Persimmon | 3.5 | 2.1 | 0.7 | 0.6 |
| Hard maple | 2.8 | 1.5 | 0.6 | 0.7 |
| Soft maple | 52.0 | 32.1 | 15.4 | 4.5 |
| Beech | 51.6 | 29.8 | 10.3 | 11.4 |
| Sweetgum | 615.5 | 508.0 | 89.7 | 17.8 |
| Blackgum | 162.3 | 119.8 | 32.2 | 10.3 |
| Other gums/tupelos | 56.2 | 37.1 | 12.7 | 6.3 |
| White ash | 29.7 | 21.8 | 5.4 | 2.5 |
| Other ashes | 48.4 | 34.1 | 10.5 | 3.7 |
| Sycamore | 28.6 | 22.0 | 5.9 | 0.7 |
| Cottonwood | 1.1 | 1.1 | ... | ... |
| Basswood | 2.1 | 0.3 | 0.6 | 1.1 |
| Magnolia | 20.5 | 11.5 | 4.0 | 4.9 |
| Sweetbay | 27.6 | 17.4 | 8.0 | 2.2 |
| Willow | 3.6 | 3.2 | 0.4 | ... |
| Black walnut | 1.3 | 0.5 | 0.7 | 0.1 |
| Black cherry | 2.6 | 2.1 | 0.5 | ... |
| American elm | 34.1 | 24.1 | 9.6 | 0.4 |
| Other elms | 111.2 | 83.3 | 26.9 | 1.0 |
| River birch | 5.7 | 4.0 | 1.7 | ... |
| Hackberry | 47.1 | 23.1 | 21.3 | 2.7 |
| Other locusts | 6.4 | 3.4 | 2.9 | ... |
| Sassafras | 6.2 | 4.7 | 1.4 | ... |
| Dogwood | 3.3 | 1.3 | 2.1 | ... |
| Holly | 22.0 | 12.3 | 8.4 | 1.3 |
| Other commercial | 4.0 | 0.4 | 3.3 | 0.3 |
| Total hardwoods | 3131.3 | 2352.5 | 623.2 | 155.6 |
| Noncommercial | 82.4 | ... | 82.4 | ... |
| All species | 8553.1 | 7595.9 | 794.6 | 162.6 |

## AREA OF TIMBERLAND BY FOREST TYPE
SOUTHEAST TEXAS 1975 AND 1986

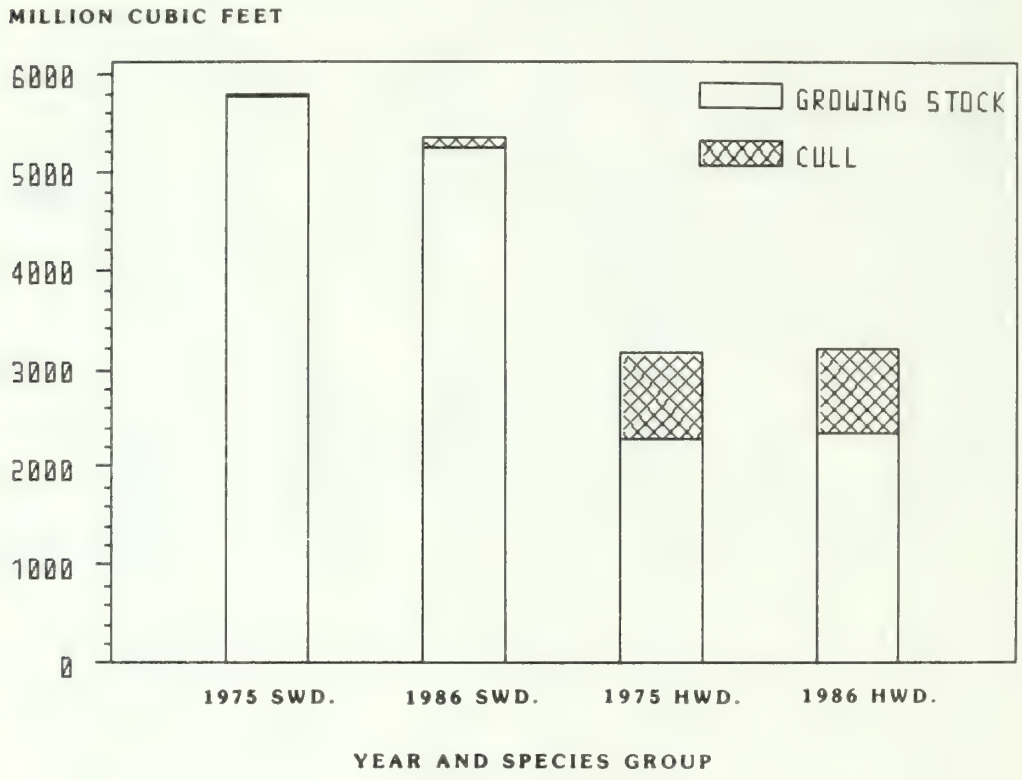



## AREA OF TIMBERLAND BY STAND-SIZE CLASS
SOUTHEAST TEXAS 1975 AND 1986



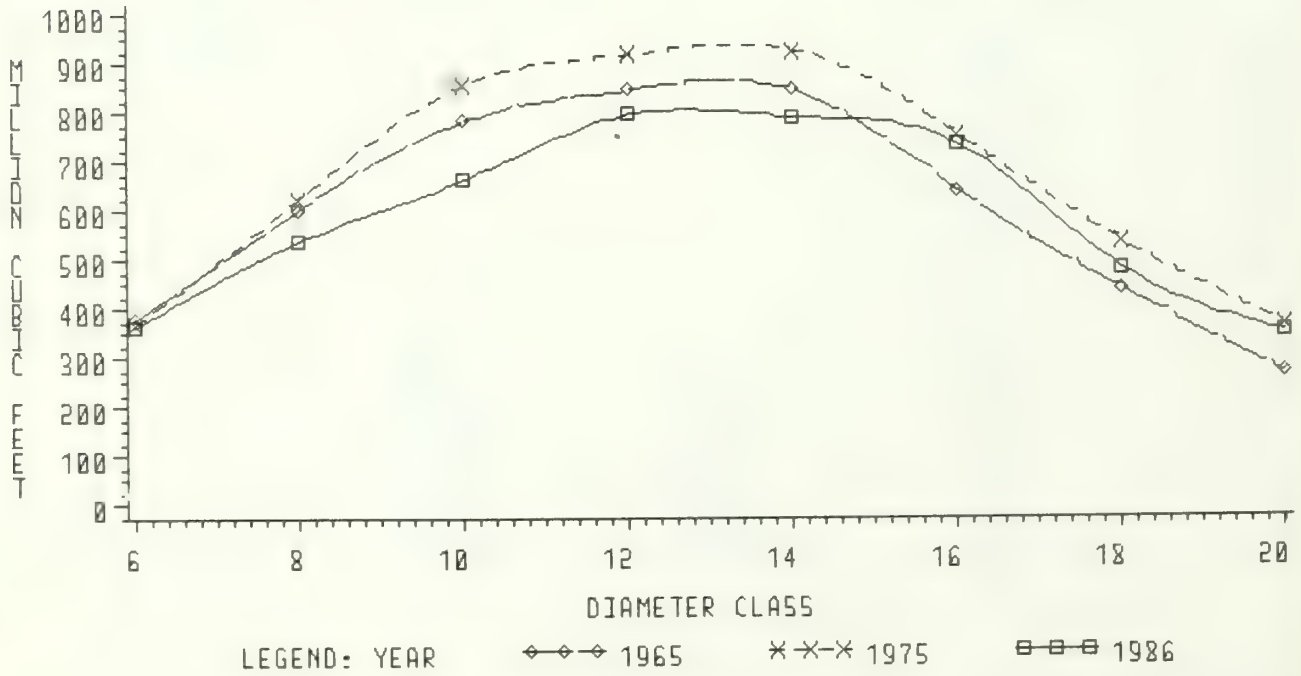
# TIMBER VOLUME BY TREE CLASS AND SPECIES

SOUTHEAST TEXAS 1975 AND 1986



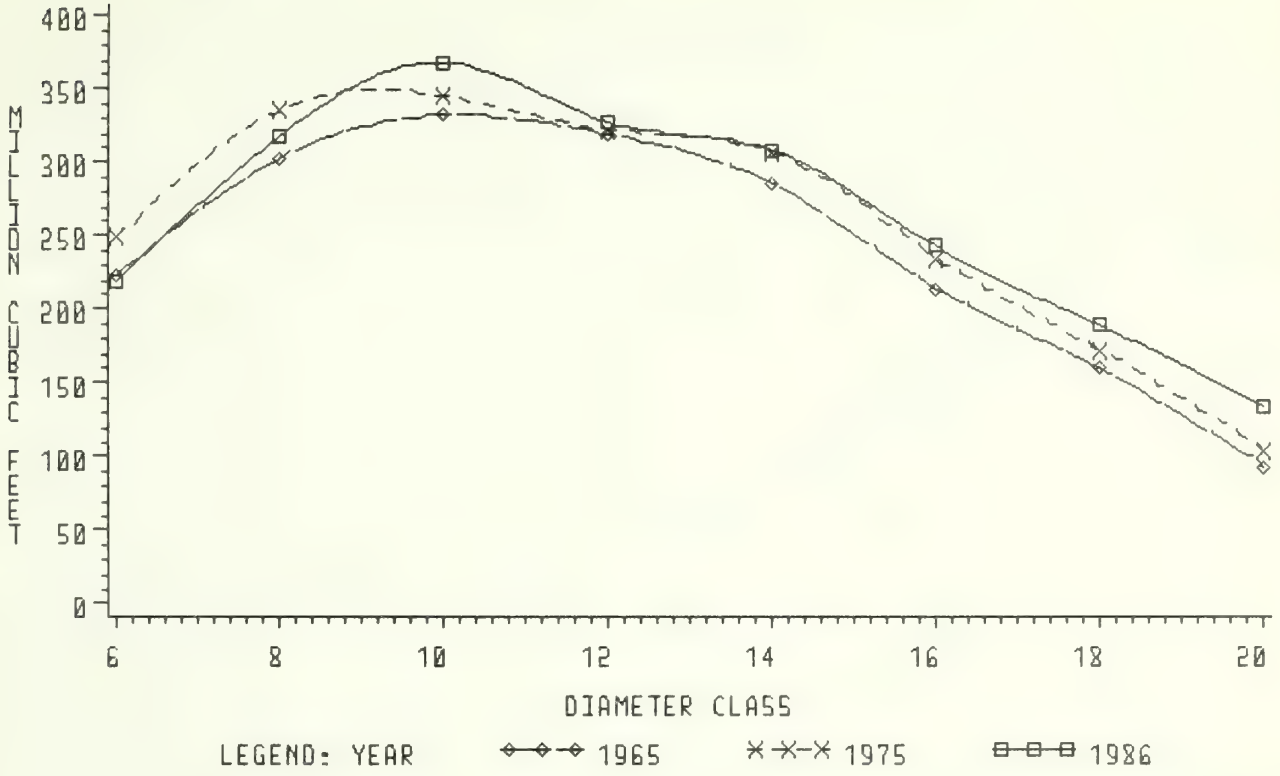

# SOFTWOOD GROWING-STOCK VOLUME BY DBH CLASS

SOUTHEAST TEXAS 1965, 1975 AND 1986



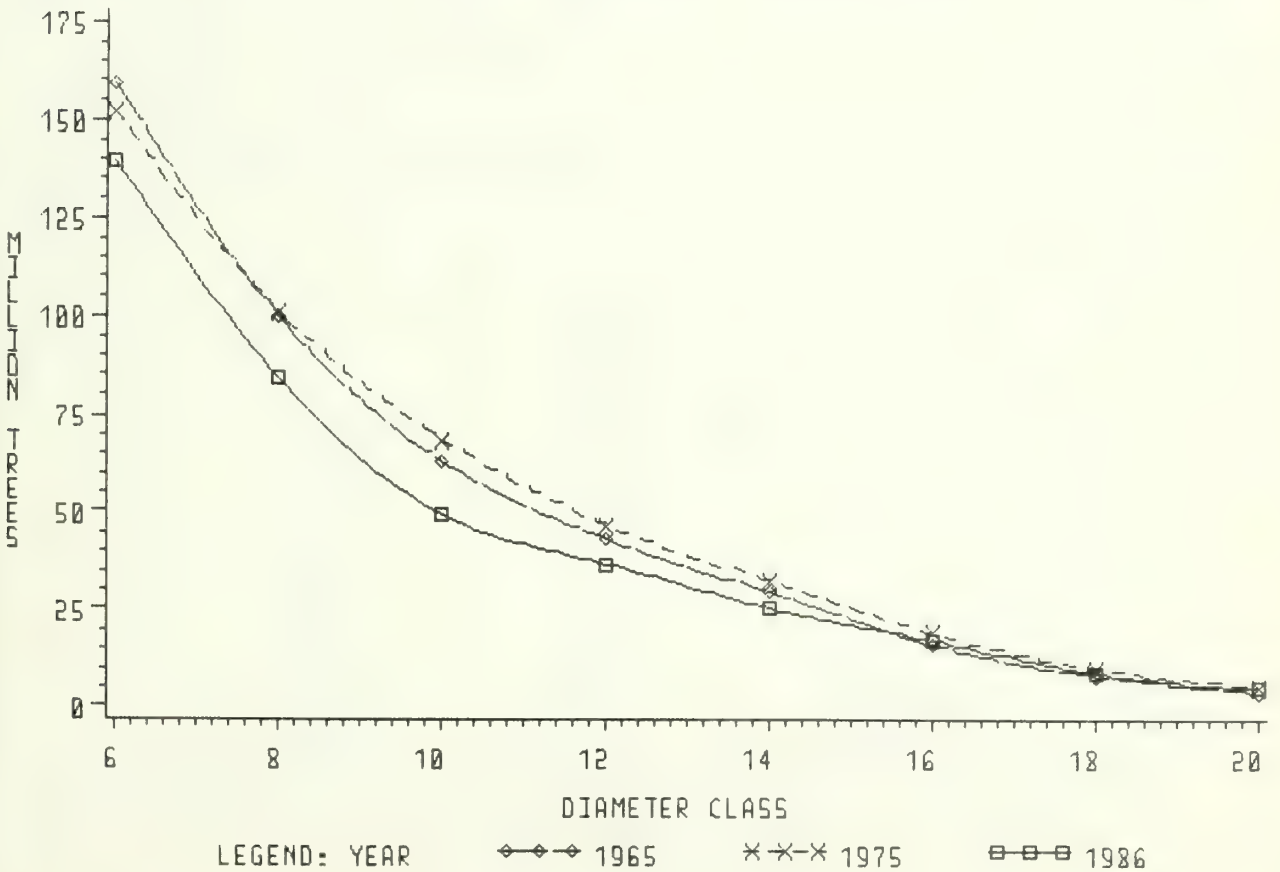
## HARDWOOD GROWING-STOCK VOLUME BY DBH CLASS

SOUTHEAST TEXAS 1965, 1975, AND 1986



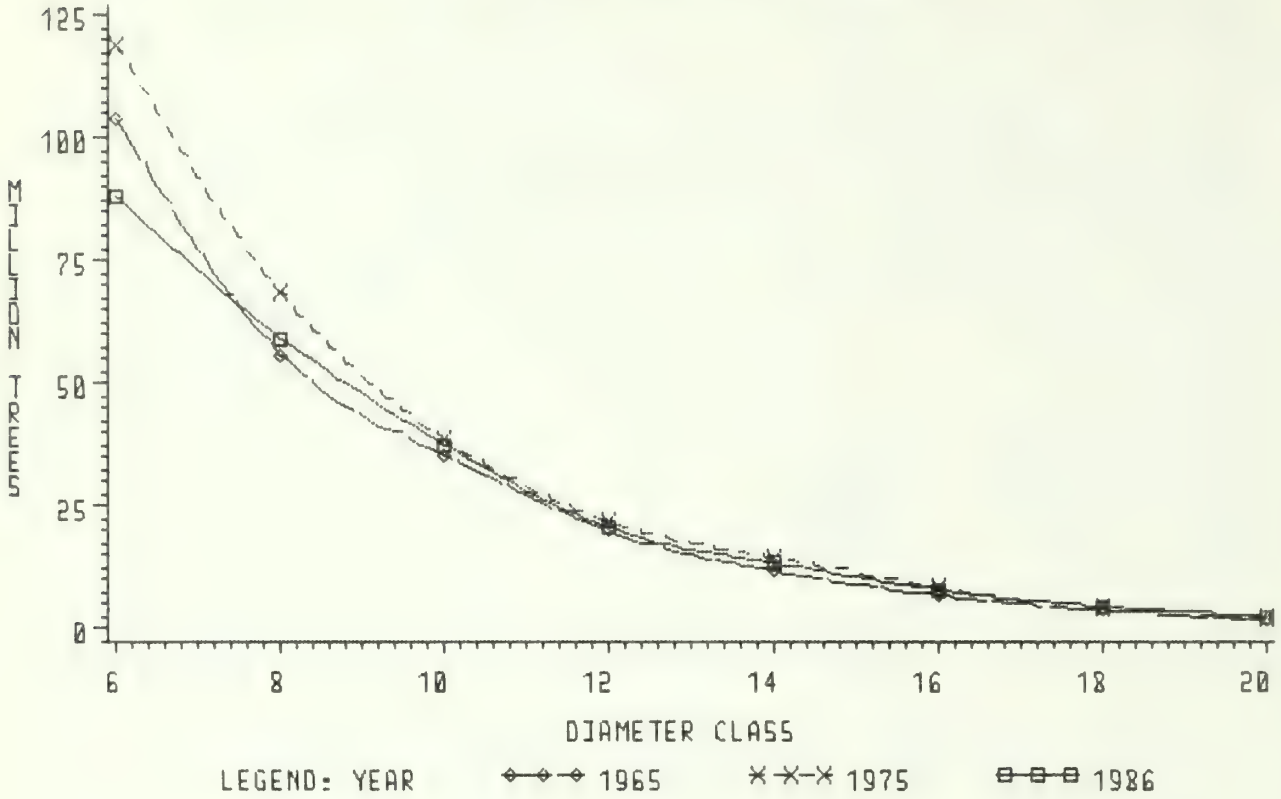

## NUMBER OF SOFTWOOD GROWING-STOCK TREES BY DBH CLASS

SOUTHEAST TEXAS 1965, 1975, AND 1986



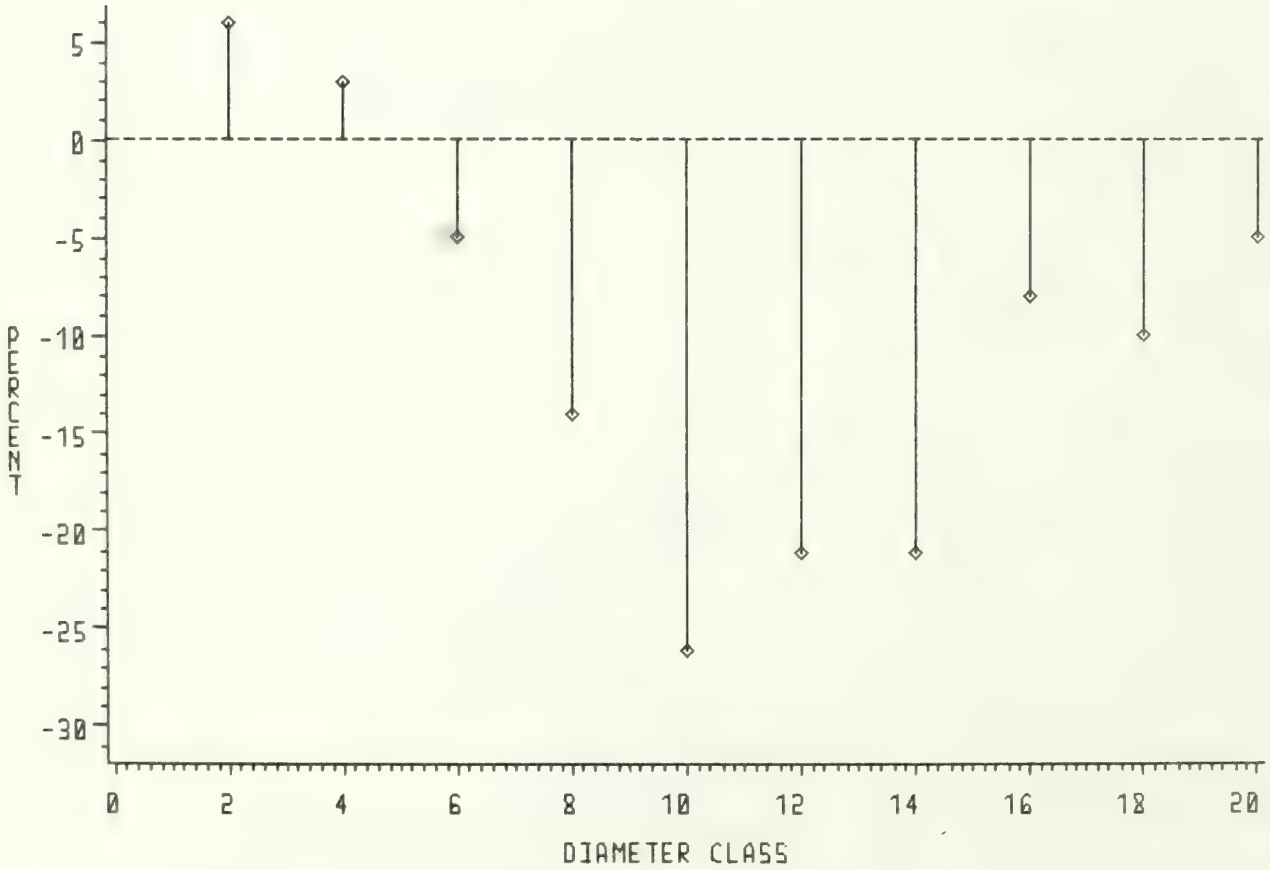
## NUMBER OF HARDWOOD GROWING-STOCK TREES BY DBH CLASS

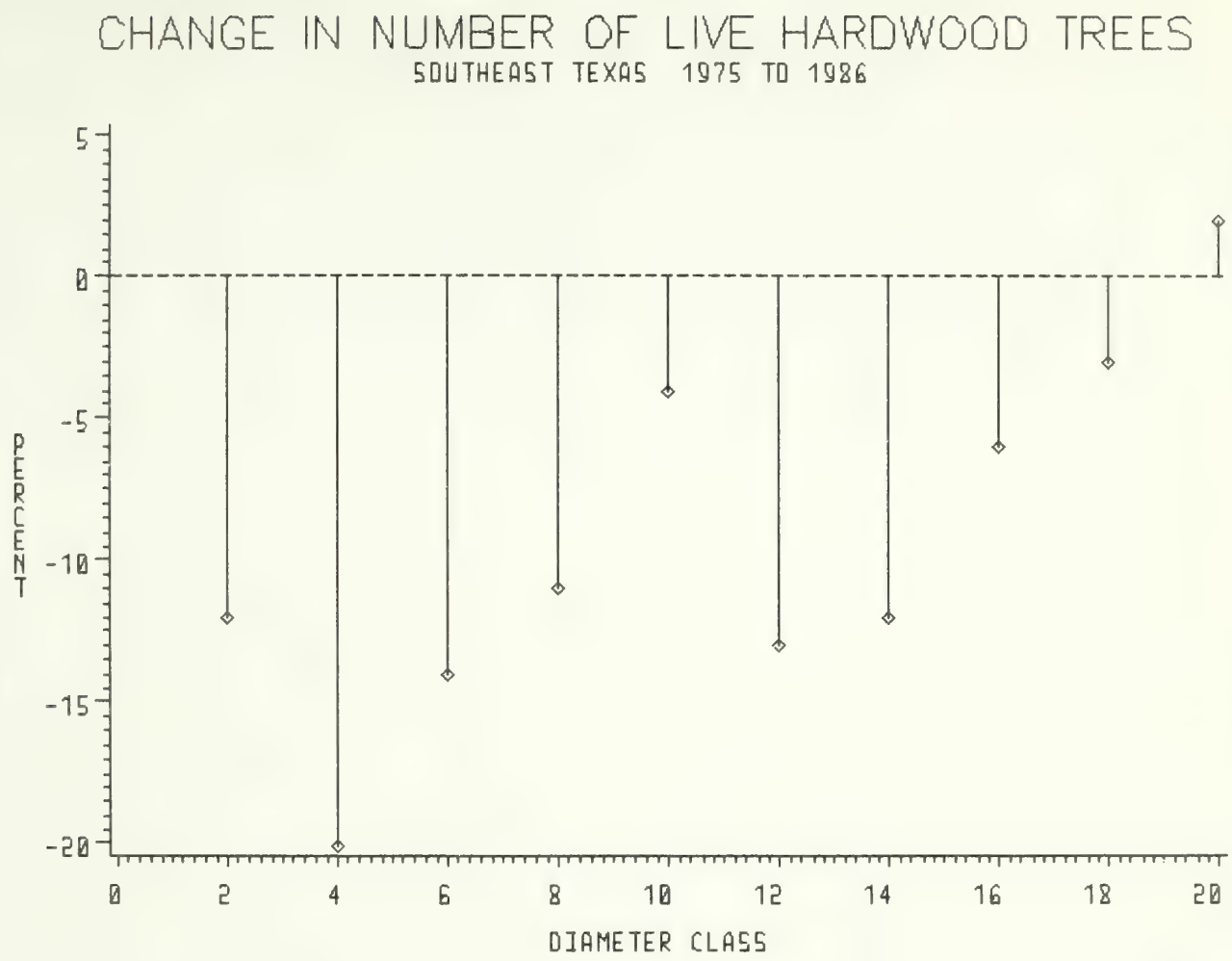
SOUTHEAST TEXAS 1965, 1975, AND 1986

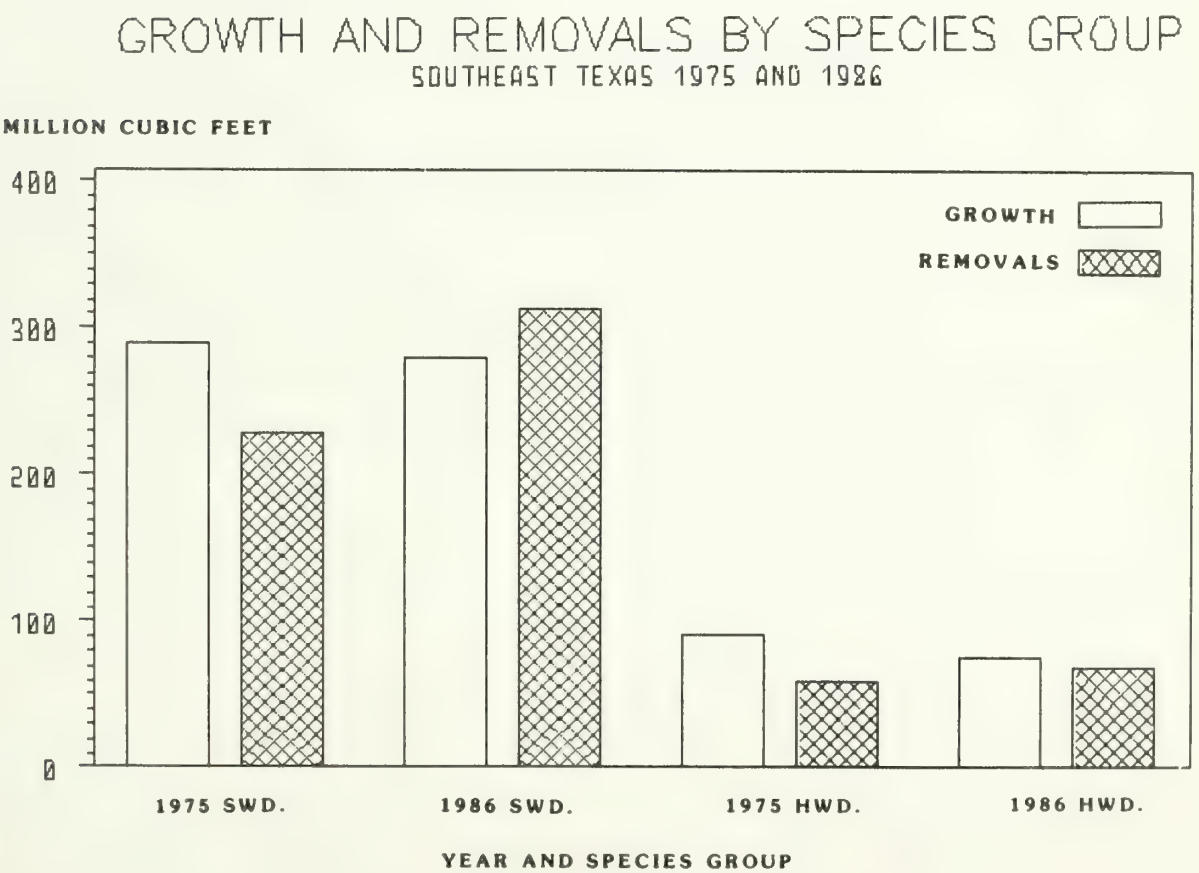



## CHANGE IN NUMBER OF LIVE SOFTWOOD TREES

SOUTHEAST TEXAS 1975 TO 1986




CHANGE IN NUMBER OF LIVE HARDWOOD TREES
SOUTHEAST TEXAS 1975 TO 1986
5
0
-5
-10
-15
-20
PERCENT
0
2
4
6
8
10
12
14
16
18
20
DIAMETER CLASS


GROWTH AND REMOVALS BY SPECIES GROUP
SOUTHEAST TEXAS 1975 AND 1986
MILLION CUBIC FEET
400
300
200
100
0
GROWTH
REMOVALS
1975 SWD.
1986 SWD.
1975 HWD.
1986 HWD.
YEAR AND SPECIES GROUP

McWilliams, William H. and Bertelson, Daniel F., Forest statistics for Southeast Texas counties - 1986. Resourc. Bull. SO- 114 . New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1986. 29 p.

Tabulates forest resource information from a new inventory of the Southeast Unit of Texas.

**Additional Keywords:** Area, volume, forest type, stand size, ownership.

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# Forest Statistics for Louisiana Parishes

Dennis M. May and Daniel F. Bertelson

## SUMMARY

The Southern Forest Survey, an activity of the Southern Forest Experiment Station Forest Inventory and Analysis work unit, covers the states of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, East Texas and the Island of Puerto Rico.

This survey is part of the nationwide Forest Survey originally authorized by the McSweeney-McNary Act of 1928. More recent legislation pertinent to the survey mission includes the Forest and Rangeland Renewable Resources Planning Act of 1974 and the Forest Rangeland Renewable Resources Research Act of 1978. The survey mission is to develop, analyze and maintain renewable forest resource information. This information is essential for formulation of forest policies and programs.

## ACKNOWLEDGMENTS

The Southern Station gratefully acknowledges the cooperation and assistance provided by the Louisiana Office of Forestry in collecting field data. Appreciation is also expressed for the cooperation of other public agencies and other private landowners in providing access to the sample locations.

# Forest Statistics for Louisiana Parishes

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## INTRODUCTION

These tables were derived from data obtained during a 1984 inventory of Louisiana. The data on forest acreage and timber volume were secured by a systematic sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurement of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. At each forest location, per acre estimates were obtained from 5 BA 37.5 point samples.

The sampling methods were developed to provide suitable State estimates. Estimates for smaller areas are presented, but sampling error increases as the area considered decreases. Sampling errors given in Table I are based on one standard deviation or a probability of two chances out of three. To estimate the sampling error for a combination of parishes one can use the following:

$$SE_g = \frac{SE_t \sqrt{X_t}}{\sqrt{X_g}}$$

where:

SE = standard error of estimate (expressed as a percent)
X = variable of interest (area or volume)
g = group of parishes to be combined
t = total for the State

Tables 1-25 were developed in response to the Southern Industrial Forestry Council's recommendations and to provide compatibility among Forest Inventory and Analysis Projects. Tables 26-36 are supplementary tables and may change from State to State to address specific resource issues.

Table I—Sampling errors[1] for timberland, growing stock, and sawtimber, Louisiana, 1984

| Parish | Timberland | Growing stock | | | Sawtimber volume |
|---|---|---|---|---|---|
| | | Volume | Growth | Removals | |
| | Percent | | | | |
| Acadia[3] | 0.6 | 18.3 | 20.6 | ... | 20.6 |
| Allen | 1.4 | 9.4 | 12.5 | 12.8 | 11.4 |
| Ascension | 4.4 | 21.3 | 26.8 | 48.9 | 25.5 |
| Assumption | 1.5 | 19.2 | (2) | ... | 36.6 |
| Avoyelles | 2.7 | 11.5 | 18.3 | 21.3 | 13.5 |
| Beauregard | 2.0 | 11.7 | 8.9 | 10.3 | 14.7 |
| Bienville | 1.8 | 11.9 | 7.7 | 13.8 | 13.8 |
| Bossier | 1.7 | 10.7 | 7.0 | 20.9 | 13.4 |
| Caddo | 2.0 | 10.6 | 11.1 | 13.4 | 12.8 |
| Calcasieu | 1.7 | 17.9 | 20.1 | 24.5 | 20.6 |
| Caldwell | 1.9 | 9.4 | 12.9 | 17.0 | 11.1 |
| Catahoula | 2.5 | 26.0 | 22.2 | 28.3 | 30.7 |
| Claiborne | 1.7 | 8.4 | 6.9 | 13.9 | 10.5 |
| Concordia | 2.9 | 13.1 | 14.5 | 12.1 | 14.5 |
| De Soto | 2.3 | 8.3 | 11.7 | 12.6 | 9.4 |
| East Baton Rouge | 2.1 | 13.3 | 15.3 | 27.8 | 14.9 |
| East Carroll[4] | 1.3 | 28.4 | 22.3 | 24.7 | 28.9 |
| East Feliciana | 3.4 | 17.8 | 22.8 | 28.0 | 20.9 |
| Evangeline | 2.0 | 11.0 | 13.9 | 29.5 | 14.3 |
| Grant | 2.1 | 11.3 | 9.4 | 14.2 | 13.3 |
| Iberia | 2.4 | 14.2 | 30.2 | 5.5 | 20.0 |
| Iberville[5] | 1.7 | 7.8 | 27.4 | (2) | 9.1 |
| Jackson | 2.0 | 14.5 | 9.1 | 11.5 | 18.4 |
| Jefferson Davis | 1.3 | 21.2 | 16.7 | (2) | 24.2 |
| Lafourche | 2.5 | 15.9 | 21.1 | 30.4 | 19.6 |
| La Salle | 2.7 | 12.3 | 10.3 | 15.7 | 15.5 |
| Lincoln | 2.0 | 13.5 | 10.5 | 11.5 | 16.0 |
| Livingston | 1.8 | 11.3 | 15.4 | 35.3 | 13.6 |
| Madison | 2.8 | 16.9 | 24.8 | 21.0 | 19.3 |
| Morehouse | 2.3 | 13.1 | 16.6 | 24.6 | 14.4 |
| Natchitoches | 1.3 | 7.2 | 7.9 | 9.6 | 8.7 |
| Ouachita | 2.5 | 10.8 | 13.0 | 13.4 | 13.0 |
| Pointe Coupee | 2.9 | 12.0 | 12.3 | 22.3 | 12.7 |
| Rapides | 1.9 | 9.9 | 9.5 | 15.0 | 12.0 |
| Red River | 1.8 | 14.5 | 26.2 | 27.5 | 18.6 |
| Sabine | 1.2 | 8.9 | 8.7 | 11.5 | 10.9 |
| St. Charles | 2.4 | 26.0 | 32.8 | ... | 40.5 |
| St. Helena | 4.1 | 17.7 | 14.0 | 19.2 | 21.4 |
| St. James | 3.6 | 19.4 | 35.5 | 10.7 | 26.9 |
| St. John Baptist | 1.9 | 37.2 | ... | ... | 37.4 |
| St. Landry | 1.6 | 11.2 | 13.6 | 20.6 | 12.3 |
| St. Martin | 1.8 | 10.0 | 25.6 | 31.8 | 12.1 |
| St. Mary | 2.2 | 16.7 | 36.5 | ... | 17.9 |
| St. Tammany | 2.0 | 13.4 | 14.4 | 19.3 | 15.3 |
| Tangipahoa | 2.2 | 12.1 | 20.5 | 20.4 | 14.0 |
| Tensas | 3.4 | 23.0 | 18.6 | 23.9 | 25.1 |
| Terrebonne | 2.8 | 21.3 | 33.8 | 39.3 | 27.4 |
| Union | 1.9 | 9.7 | 10.2 | 12.0 | 11.6 |
| Vernon | 1.2 | 8.1 | 7.8 | 10.5 | 10.6 |
| Washington | 2.4 | 15.2 | 14.3 | 14.1 | 16.6 |
| Webster | 3.2 | 11.7 | 10.3 | 14.4 | 13.7 |
| West Feliciana | 2.9 | 33.8 | 27.3 | 18.6 | 47.9 |
| Winn | 0.9 | 7.8 | 9.0 | 10.6 | 9.4 |
| All parishes | 0.3 | 1.9 | 2.0 | 2.6 | 2.4 |

[1] By random-sampling formula.

[2] Sampling error greater than 50.

[3] Lafayette and Vermilion included in Acadia.

[4] Franklin, Richland, and West Carroll included in East Carroll.

[5] West Baton Rouge included in Iberville.

**The Forest Survey regions of Louisiana.**

## DEFINITION OF TERMS

*Average net annual growth.* — Average annual net volume increase for the inter-survey period.

*Average annual mortality.* — Average annual sound-wood volume of live trees dying from natural causes.

*Average annual removals.* — Average annual net volume of growing-stock trees removed from the inventory by harvesting, cultural operations (such as timber-stand improvement), land clearing, or changes in land use.

*Forest type.* — A classification of forest land based upon the species forming a plurality of live-tree stocking.

*Growing-stock trees.* — Live trees of commercial species. Rough and rotten trees are excluded.

*Growing-stock volume.* — The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches in diameter at breast height, from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or to the point where the central stem breaks into limbs.

*Noncommercial species.* — Tree species of typically small size, poor form, or inferior quality which normally do not develop into trees suitable for industrial wood products.

*Physiographic site.* — A classification of forest land according to the availability of moisture for tree growth. Xeric-low or defficient in moisture. Mesic-a moderate amount of moisture. Hydric-an abundance or over abundance of moisture.

*Poletimber trees.* — Growing-stock trees of commercial species at least 5.0 inches in diameter at breast height, but smaller than sawtimber size.

*Rotten trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of rot.

*Reserved timberland.* — Productive public forest land withdrawn from timber utilization through statute or administrative regulations.

*Rough trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of roughness or poor form. Also included are all live trees of noncommercial species.

*Sawtimber trees.* — Live trees that are of commercial species, contain at least a 12-foot saw log, and meet regional specifications for freedom from defect. Softwoods must be at least 9.0 inches in diameter at breast height and hardwoods at least 11.0 inches in diameter at breast height.

*Sawtimber volume.* — Sound-wood volume of the saw-log portion of live sawtimber trees in board feet, International 1/4-inch rule and in cubic feet.

*Site class.* — A classification of forest land in terms of inherent capacity to grow crops of industrial wood.

*Stand-size class.* — A classification of forest land based on the size class of growing-stock trees on the sampled area; that is, sawtimber, poletimber, or sapling and seedling.

*Timberland.* — Forest that is producing, or is capable of producing, crops of industrial wood and not withdrawn from timber utilization. Timberland is synonymous with "commercial forest land" in prior reports.

Table 1--Area by parish and land class, Louisiana, 1984

| Parish | All land[1] | Forest land | | | | Nonforest |
|---|---|---|---|---|---|---|
| | | Total | Timberland[2] | Woodland[3] | Reserved timberland | |
| | Thousand acres | | | | | |
| Acadia[5] | 1433.4 | 97.5 | 97.5 | ... | ... | 1336.0 |
| Allen | 490.4 | 346.6 | 346.6 | ... | ... | 143.8 |
| Ascension | 193.9 | 84.9 | 84.9 | ... | ... | 109.0 |
| Assumption | 234.7 | 144.0 | 144.0 | ... | ... | 90.7 |
| Avoyelles | 553.2 | 166.2 | 166.2 | ... | ... | 387.0 |
| Beauregard | 746.1 | 594.9 | 594.9 | ... | ... | 151.2 |
| Bienville | 526.4 | 437.0 | 437.0 | ... | ... | 89.3 |
| Bossier | 554.5 | 367.0 | 367.0 | ... | ... | 187.5 |
| Caddo | 600.4 | 298.6 | 298.6 | ... | ... | 301.8 |
| Calcasieu | 699.9 | 206.7 | 206.7 | ... | ... | 493.2 |
| Caldwell[7] | 346.1 | 253.6 | 253.6 | ... | ... | 92.5 |
| Cameron[7] | 1056.4 | ... | ... | ... | ... | 1056.4 |
| Catahoula | 473.6 | 177.0 | 177.0 | ... | ... | 296.5 |
| Claiborne | 491.2 | 398.5 | 398.3 | ... | 0.2 | 92.7 |
| Concordia | 479.7 | 151.0 | 151.0 | ... | ... | 328.7 |
| De Soto | 572.4 | 377.1 | 377.1 | ... | ... | 195.2 |
| East Baton Rouge | 301.7 | 112.4 | 112.4 | ... | ... | 189.4 |
| East Carroll[4] | 1283.5 | 178.3 | 178.3 | ... | ... | 1105.2 |
| East Feliciana | 291.5 | 172.1 | 172.1 | ... | ... | 119.4 |
| Evangeline | 435.3 | 177.5 | 177.5 | ... | ... | 257.8 |
| Franklin[4] | ... | ... | ... | ... | ... | ... |
| Grant | 424.9 | 334.0 | 334.0 | ... | ... | 90.9 |
| Iberia | 403.1 | 149.1 | 149.1 | ... | ... | 254.0 |
| Iberville[6] | 547.6 | 332.7 | 332.7 | ... | ... | 214.9 |
| Jackson | 370.8 | 334.8 | 334.8 | ... | ... | 36.0 |
| Jefferson[7] | 387.4 | ... | ... | ... | ... | 387.4 |
| Jefferson Davis | 421.5 | 56.1 | 56.1 | ... | ... | 365.4 |
| Lafayette[5] | ... | ... | ... | ... | ... | ... |
| Lafourche | 828.9 | 143.7 | 143.7 | ... | ... | 685.2 |
| La Salle | 424.1 | 360.0 | 360.0 | ... | ... | 64.1 |
| Lincoln | 302.3 | 223.9 | 223.9 | ... | ... | 78.4 |
| Livingston | 448.0 | 343.2 | 343.2 | ... | ... | 104.8 |
| Madison | 416.3 | 104.6 | 104.6 | ... | ... | 311.7 |
| Morehouse | 516.3 | 188.7 | 188.7 | ... | ... | 327.6 |
| Natchitoches | 832.0 | 563.5 | 554.5 | ... | 9.0 | 268.5 |
| Ouachita | 404.6 | 230.2 | 230.2 | ... | ... | 174.4 |
| Orleans[7] | 223.7 | ... | ... | ... | ... | 223.7 |
| Plaquemines[7] | 901.8 | ... | ... | ... | ... | 901.8 |
| Pointe Coupee | 378.0 | 142.1 | 142.1 | ... | ... | 235.9 |
| Rapides | 871.4 | 561.9 | 561.8 | ... | 0.1 | 309.5 |
| Red River | 257.3 | 135.6 | 135.6 | ... | ... | 121.7 |
| Richland[4] | ... | ... | ... | ... | ... | ... |
| Sabine | 647.4 | 462.6 | 462.6 | ... | ... | 184.8 |
| St. Bernard[7] | 477.8 | ... | ... | ... | ... | 477.8 |

Table 1--Area by parish and land class, Louisiana, 1984--Continued

| Parish | All land[1] | Forest land | | | | Nonforest |
|---|---|---|---|---|---|---|
| | | Total | Timberland[2] | Woodland[3] | Reserved timberland | |
| | Thousand acres | | | | | |
| St. Charles | 260.8 | 58.8 | 58.8 | ... | ... | 202.0 |
| St. Helena | 262.0 | 178.6 | 178.6 | ... | ... | 83.4 |
| St. James | 162.5 | 79.3 | 79.3 | ... | ... | 83.1 |
| St. John Baptist | 220.6 | 96.0 | 96.0 | ... | ... | 124.6 |
| St. Landry | 601.0 | 188.8 | 188.8 | ... | ... | 412.2 |
| St. Martin | 523.0 | 305.4 | 305.4 | ... | ... | 217.6 |
| St. Mary | 442.4 | 139.4 | 139.4 | ... | ... | 303.0 |
| St. Tammany | 721.8 | 360.5 | 360.5 | ... | ... | 361.4 |
| Tangipahoa | 523.6 | 295.5 | 295.5 | ... | ... | 228.1 |
| Tensas | 411.1 | 114.0 | 114.0 | ... | ... | 297.2 |
| Terrebonne | 1034.1 | 104.8 | 104.8 | ... | ... | 929.3 |
| Union | 578.9 | 477.1 | 477.1 | ... | ... | 101.8 |
| Vermilion[5] | ... | ... | ... | ... | ... | ... |
| Vernon | 858.2 | 762.0 | 762.0 | ... | ... | 96.3 |
| Washington | 432.5 | 289.0 | 289.0 | ... | ... | 143.4 |
| Webster | 393.6 | 291.1 | 290.5 | ... | 0.6 | 102.4 |
| West Baton Rouge[6] | ... | ... | ... | ... | ... | ... |
| West Carroll[4] | ... | ... | ... | ... | ... | ... |
| West Feliciana | 273.1 | 158.6 | 158.6 | ... | ... | 114.5 |
| Winn | 612.2 | 576.3 | 576.1 | ... | 0.2 | 35.9 |
| All parishes | 27513.9 | 13882.7 | 13872.6 | ... | 10.1 | 13631.1 |

[1] From U.S. Bureau of the Census.

[2] Forest land (formerly termed commercial forest land) that is producing or capable of producing at least 20 cubic feet of industrial wood per acre per year. Includes areas which may be inaccessible or inoperable by current standards. Excludes reserved timberlands.

[3] Forest land incapable of producing 20 cubic feet of industrial wood per acre per year under natural conditions because of adverse site condition.

[4] Franklin, Richland, and West Carroll included in East Carroll.

[5] Lafayette and Vermilion included in Acadia.

[6] West Baton Rouge included in Iberville.

[7] Negligible forest land, not surveyed.

Table 2--Area of timberland by parish and ownership class, Louisiana, 1984

| Parish | All ownerships | National forest | Misc. federal | State | Parish and municipal | Forest industry[1] | Farmer | Corporate[2] | Individual[2] |
|---|---|---|---|---|---|---|---|---|---|
| | Thousand acres | | | | | | | | |
| Acadia[3] | 97.5 | ... | ... | ... | 5.1 | 10.3 | 10.3 | 20.5 | 51.3 |
| Allen | 346.6 | ... | ... | ... | ... | 154.0 | 5.5 | 115.5 | 71.5 |
| Ascension | 84.9 | ... | ... | ... | ... | 6.1 | ... | 24.2 | 54.6 |
| Assumption | 144.0 | ... | ... | ... | ... | 18.8 | 6.3 | 75.1 | 43.8 |
| Avoyelles | 166.2 | ... | ... | 5.4 | 26.8 | 32.2 | 21.4 | 53.6 | 26.8 |
| Beauregard | 594.9 | ... | ... | ... | ... | 268.3 | 29.2 | 134.1 | 163.3 |
| Bienville | 437.0 | ... | ... | ... | ... | 262.2 | 32.8 | ... | 142.0 |
| Bossier | 367.0 | ... | 21.6 | ... | 10.8 | 80.9 | 10.8 | 16.2 | 226.7 |
| Caddo | 298.6 | ... | ... | 10.5 | 5.2 | ... | 21.0 | 41.9 | 220.0 |
| Calcasieu | 206.7 | ... | ... | ... | ... | 68.9 | ... | 50.1 | 87.7 |
| Caldwell | 253.6 | ... | ... | 41.3 | 5.9 | 106.2 | 17.7 | 5.9 | 76.7 |
| Catahoula | 177.0 | ... | ... | 18.6 | ... | 102.5 | 9.3 | 28.0 | 18.6 |
| Claiborne | 398.3 | 26.1 | ... | ... | ... | 32.6 | ... | 19.6 | 320.0 |
| Concordia | 151.0 | ... | 10.4 | 36.4 | 10.4 | 20.8 | 15.6 | 20.8 | 36.4 |
| De Soto | 377.1 | ... | ... | ... | ... | 70.7 | 47.1 | 23.6 | 235.7 |
| East Baton Rouge | 112.4 | ... | ... | ... | ... | ... | 28.1 | 21.1 | 63.2 |
| East Carroll[4] | 178.3 | ... | ... | 16.2 | 16.2 | 72.9 | 48.6 | ... | 24.3 |
| East Feliciana | 172.1 | ... | ... | ... | ... | 6.9 | 75.7 | 6.9 | 82.6 |
| Evangeline | 177.5 | ... | ... | 5.2 | 5.2 | 26.1 | ... | 57.4 | 83.5 |
| Grant | 334.0 | 167.0 | ... | ... | ... | 111.3 | ... | 6.2 | 49.5 |
| Iberia | 149.1 | ... | ... | 7.1 | ... | ... | 7.1 | 92.3 | 42.6 |
| Iberville[5] | 332.7 | ... | 5.8 | 23.3 | ... | 17.5 | 5.8 | 227.6 | 52.5 |
| Jackson | 334.8 | ... | ... | ... | ... | 191.3 | ... | 10.6 | 132.9 |
| Jefferson Davis | 56.1 | ... | ... | ... | ... | ... | ... | 18.7 | 37.4 |
| Lafourche | 143.7 | ... | ... | ... | ... | ... | ... | 98.0 | 45.7 |
| La Salle | 360.0 | ... | ... | 33.8 | 22.5 | 281.3 | 5.6 | ... | 16.9 |
| Lincoln | 223.9 | ... | ... | ... | ... | 11.5 | 5.7 | ... | 206.7 |
| Livingston | 343.2 | ... | ... | ... | 5.8 | 180.3 | 17.4 | 64.0 | 75.6 |
| Madison | 104.6 | ... | 18.5 | ... | ... | 43.1 | 36.9 | 6.2 | ... |
| Morehouse | 188.7 | ... | ... | ... | 24.3 | 91.3 | ... | 18.3 | 54.8 |
| Natchitoches | 554.5 | 110.9 | ... | ... | 11.1 | 188.5 | 22.2 | 66.5 | 155.3 |
| Ouachita | 230.2 | ... | 6.4 | 12.8 | 6.4 | 44.8 | 6.4 | 25.6 | 127.9 |
| Pointe Coupee | 142.1 | ... | ... | ... | ... | ... | 35.5 | 41.5 | 65.1 |
| Rapides | 561.8 | 101.1 | 5.6 | 11.2 | ... | 112.4 | 33.7 | 106.7 | 191.0 |
| Red River | 135.6 | ... | ... | ... | ... | 36.5 | 5.2 | 10.4 | 83.5 |
| Sabine | 462.6 | ... | 5.8 | 11.6 | 5.8 | 208.2 | ... | 23.1 | 208.2 |
| St. Charles | 58.8 | ... | 3.7 | ... | ... | ... | ... | 29.4 | 25.7 |
| St. Helena | 178.6 | ... | ... | ... | ... | 112.4 | 26.5 | ... | 39.7 |
| St. James | 79.3 | ... | ... | ... | ... | ... | ... | 52.9 | 26.4 |
| St. John Baptist | 96.0 | ... | ... | ... | ... | ... | 8.0 | 56.0 | 32.0 |
| St. Landry | 188.8 | ... | 5.4 | ... | ... | 37.8 | 37.8 | 32.4 | 75.5 |
| St. Martin | 305.4 | ... | ... | 42.8 | ... | ... | 12.2 | 171.0 | 79.4 |
| St. Mary | 139.4 | ... | ... | 6.1 | ... | ... | 24.2 | 54.5 | 54.5 |
| St. Tammany | 360.5 | ... | 6.6 | 13.1 | ... | 72.1 | 6.6 | 98.3 | 163.9 |
| Tangipahoa | 295.5 | ... | ... | 10.9 | ... | 54.7 | 27.4 | 27.4 | 175.1 |
| Tensas | 114.0 | ... | 11.4 | 5.7 | ... | 34.2 | 22.8 | 5.7 | 34.2 |
| Terrebonne | 104.8 | ... | ... | ... | ... | 6.5 | 6.5 | 39.3 | 52.4 |
| Union | 477.1 | ... | 29.8 | 6.0 | 6.0 | 143.1 | 35.8 | 23.9 | 232.6 |
| Vernon | 762.0 | 85.3 | 62.5 | ... | ... | 409.4 | 17.1 | 45.5 | 142.2 |
| Washington | 289.0 | ... | ... | 5.8 | ... | 144.5 | 52.0 | ... | 86.7 |
| Webster | 290.5 | 25.3 | 18.9 | ... | ... | 50.5 | 31.6 | 12.6 | 151.6 |
| West Feliciana | 158.6 | ... | ... | 6.1 | ... | 30.5 | 36.6 | 12.2 | 73.2 |
| Winn | 576.1 | 105.2 | ... | ... | ... | 315.7 | ... | 5.5 | 149.6 |
| All parishes | 13872.6 | 620.9 | 212.4 | 329.8 | 167.6 | 4269.9 | 906.0 | 2196.9 | 5169.0 |

[1] Includes land leased to forest industry.

[2] Indian land will be classed as corporate or individual as defined by the Bureau of Indian Affairs.

[3] Franklin, Richland, and West Carroll included in East Carroll.

[4] Lafayette and Vermilion included in Acadia.

[5] West Baton Rouge included in Iberville.

Table 3--Area of timberland by parish and forest type group, Louisiana, 1984

| Parish | Total | Forest type group | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash Pine | | Loblolly-shortleaf Pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood | Nontyped[1] |
| | | Planted | Natural | Planted | Natural | | | | | |
| | Thousand acres | | | | | | | | | |
| Acadia[2] | 97.5 | ... | ... | ... | 15.4 | ... | 10.3 | 66.7 | 5.1 | ... |
| Allen | 346.6 | 66.0 | ... | 16.5 | 55.0 | 88.0 | 38.5 | 82.5 | ... | ... |
| Ascension | 84.9 | ... | ... | ... | 6.1 | ... | 6.1 | 72.7 | ... | ... |
| Assumption | 144.0 | ... | ... | ... | ... | ... | ... | 137.7 | 6.3 | ... |
| Avoyelles | 166.2 | ... | ... | ... | 10.7 | ... | 5.4 | 150.1 | ... | ... |
| Beauregard | 594.9 | 192.5 | 75.8 | 35.0 | 87.5 | 40.8 | 58.3 | 105.0 | ... | ... |
| Bienville | 437.0 | 5.5 | ... | 92.9 | 109.3 | 98.3 | 109.3 | 21.9 | ... | ... |
| Bossier | 367.0 | ... | ... | 10.8 | 145.7 | 75.6 | 59.4 | 59.4 | 16.2 | ... |
| Caddo | 298.6 | ... | ... | ... | 78.6 | 78.6 | 62.9 | 73.3 | 5.2 | ... |
| Calcasieu | 206.7 | 50.1 | 43.9 | ... | 56.4 | 6.3 | 18.8 | 31.3 | ... | ... |
| Caldwell | 253.6 | ... | ... | 23.6 | 53.1 | 35.4 | 59.0 | 82.6 | ... | ... |
| Catahoula | 177.0 | ... | ... | 9.3 | 28.0 | 46.6 | 37.3 | 55.9 | ... | ... |
| Claiborne | 398.3 | ... | ... | 45.7 | 143.7 | 78.4 | 91.4 | 39.2 | ... | ... |
| Concordia | 151.0 | ... | ... | ... | ... | ... | ... | 124.9 | 26.0 | ... |
| De Soto | 377.1 | ... | ... | 35.4 | 123.7 | 94.3 | 82.5 | 41.2 | ... | ... |
| East Baton Rouge | 112.4 | ... | ... | ... | 7.0 | ... | 35.1 | 70.2 | ... | ... |
| East Carroll[3] | 178.3 | ... | ... | ... | ... | 16.2 | ... | 105.3 | 48.6 | 8.1 |
| East Feliciana | 172.1 | ... | ... | 13.8 | 61.9 | 34.4 | 41.3 | 20.6 | ... | ... |
| Evangeline | 177.5 | 10.4 | 10.4 | ... | 57.4 | 31.3 | 31.3 | 36.5 | ... | ... |
| Grant | 334.0 | ... | 18.6 | 37.1 | 99.0 | 68.0 | 61.9 | 49.5 | ... | ... |
| Iberia | 149.1 | ... | ... | ... | ... | ... | ... | 120.7 | 28.4 | ... |
| Iberville[4] | 332.7 | ... | ... | ... | ... | ... | ... | 256.8 | 75.9 | ... |
| Jackson | 334.8 | 5.3 | ... | 47.8 | 90.4 | 69.1 | 85.0 | 37.2 | ... | ... |
| Jefferson Davis | 56.1 | ... | 6.2 | ... | 12.5 | 18.7 | 6.2 | 12.5 | ... | ... |
| Lafourche | 143.7 | ... | ... | ... | ... | ... | ... | 143.7 | ... | ... |
| La Salle | 360.0 | ... | 5.6 | 50.6 | 101.3 | 39.4 | 56.3 | 106.9 | ... | ... |
| Lincoln | 223.9 | ... | ... | 23.0 | 103.3 | 28.7 | 51.7 | 17.2 | ... | ... |
| Livingston | 343.2 | ... | ... | 17.4 | 122.1 | 52.3 | 46.5 | 104.7 | ... | ... |
| Madison | 104.6 | ... | ... | ... | ... | ... | ... | 98.4 | 6.2 | ... |
| Morehouse | 188.7 | 6.1 | ... | 6.1 | 54.8 | 18.3 | 18.3 | 85.2 | ... | ... |
| Natchitoches | 554.5 | 11.1 | 22.2 | 11.1 | 199.6 | 83.2 | 138.6 | 72.1 | 16.6 | ... |
| Ouachita | 230.2 | ... | ... | 19.2 | 63.9 | 19.2 | 44.8 | 83.1 | ... | ... |
| Pointe Coupee | 142.1 | ... | ... | ... | ... | ... | ... | 136.2 | 5.9 | ... |
| Rapides | 561.8 | 28.1 | 44.9 | 39.3 | 157.3 | 89.9 | 56.2 | 129.2 | 16.9 | ... |
| Red River | 135.6 | ... | ... | 5.2 | 15.6 | 31.3 | 52.2 | 15.6 | 10.4 | 5.2 |
| Sabine | 462.6 | 5.8 | ... | 69.4 | 144.6 | 92.5 | 127.2 | 23.1 | ... | ... |
| St. Charles | 58.8 | ... | ... | ... | ... | ... | ... | 51.4 | 7.3 | ... |
| St. Helena | 178.6 | ... | ... | 26.5 | 86.0 | 26.5 | 39.7 | ... | ... | ... |
| St. James | 79.3 | ... | ... | ... | ... | ... | ... | 79.3 | ... | ... |
| St. John Baptist | 96.0 | ... | ... | ... | ... | ... | ... | 88.0 | ... | 8.0 |
| St. Landry | 188.8 | ... | ... | ... | 5.4 | 5.4 | ... | 167.2 | 10.8 | ... |
| St. Martin | 305.4 | ... | ... | ... | ... | ... | 6.1 | 219.9 | 79.4 | ... |
| St. Mary | 139.4 | ... | ... | ... | ... | ... | ... | 121.2 | 18.2 | ... |
| St. Tammany | 360.5 | 32.8 | 65.5 | ... | 65.5 | 39.3 | 59.0 | 98.3 | ... | ... |
| Tangipahoa | 295.5 | 10.9 | 16.4 | 16.4 | 49.3 | 54.7 | 49.3 | 93.0 | ... | 5.5 |
| Tensas | 114.0 | ... | ... | ... | ... | ... | ... | 91.2 | 22.8 | ... |
| Terrebonne | 104.8 | ... | ... | ... | ... | ... | ... | 104.8 | ... | ... |
| Union | 477.1 | ... | ... | 59.6 | 149.1 | 65.6 | 101.4 | 101.4 | ... | ... |
| Vernon | 762.0 | 119.4 | 68.2 | 73.9 | 227.4 | 119.4 | 85.3 | 68.2 | ... | ... |
| Washington | 289.0 | ... | 5.8 | 46.2 | 46.2 | 52.0 | 86.7 | 52.0 | ... | ... |
| Webster | 290.5 | ... | ... | 6.3 | 94.7 | 82.1 | 69.5 | 37.9 | ... | ... |
| West Feliciana | 158.6 | ... | ... | ... | 18.3 | 6.1 | 54.9 | 73.2 | 6.1 | ... |
| Winn | 576.1 | ... | 5.5 | 88.6 | 160.6 | 127.4 | 127.4 | 60.9 | ... | 5.5 |
| All parishes | 13872.6 | 544.0 | 389.2 | 926.8 | 3106.4 | 1913.3 | 2170.7 | 4377.6 | 412.4 | 32.3 |

[1] Timberland with no current stocking.

[2] Lafayette and Vermilion included in Acadia.

[3] Franklin, Richland, and West Carroll included in East Carroll.

[4] West Baton Rouge included in Iberville.

Table 4--Area of timberland by parish and stand-size class, Louisiana, 1984

| Parish | All classes | Stand-size class | | | Nonstocked[1] areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | Thousand acres | | | | |
| Acadia[2] | 97.5 | 66.7 | 15.4 | 10.3 | 5.1 |
| Allen | 346.6 | 203.6 | 49.5 | 82.5 | 11.0 |
| Ascension | 84.9 | 66.7 | 12.1 | 6.1 | ... |
| Assumption | 144.0 | 112.7 | 18.8 | 6.3 | 6.3 |
| Avoyelles | 166.2 | 128.7 | 16.1 | 10.7 | 10.7 |
| Beauregard | 594.9 | 309.1 | 157.5 | 110.8 | 17.5 |
| Bienville | 437.0 | 196.7 | 114.7 | 120.2 | 5.5 |
| Bossier | 367.0 | 264.4 | 64.8 | 27.0 | 10.8 |
| Caddo | 298.6 | 172.9 | 62.9 | 62.9 | ... |
| Calcasieu | 206.7 | 94.0 | 50.1 | 50.1 | 12.5 |
| Caldwell | 253.6 | 171.0 | 29.5 | 41.3 | 11.8 |
| Catahoula | 177.0 | 74.5 | 28.0 | 74.5 | ... |
| Claiborne | 398.3 | 202.4 | 117.5 | 78.4 | ... |
| Concordia | 151.0 | 114.5 | 20.8 | 10.4 | 5.2 |
| De Soto | 377.1 | 229.8 | 70.7 | 64.8 | 11.8 |
| East Baton Rouge | 112.4 | 84.3 | 21.1 | ... | 7.0 |
| East Carroll[3] | 178.3 | 113.4 | 32.4 | ... | 32.4 |
| East Feliciana | 172.1 | 137.6 | 6.9 | 20.6 | 6.9 |
| Evangeline | 177.5 | 146.2 | 26.1 | 5.2 | ... |
| Grant | 334.0 | 204.1 | 55.7 | 68.0 | 6.2 |
| Iberia | 149.1 | 92.3 | 49.7 | ... | 7.1 |
| Iberville[4] | 332.7 | 268.5 | 40.9 | 11.7 | 11.7 |
| Jackson | 334.8 | 164.8 | 53.1 | 106.3 | 10.6 |
| Jefferson Davis | 56.1 | 49.9 | ... | 6.2 | ... |
| Lafourche | 143.7 | 124.1 | 19.6 | ... | ... |
| La Salle | 360.0 | 191.3 | 73.1 | 90.0 | 5.6 |
| Lincoln | 223.9 | 126.3 | 63.2 | 34.4 | ... |
| Livingston | 343.2 | 191.9 | 81.4 | 58.2 | 11.6 |
| Madison | 104.6 | 73.8 | 24.6 | 6.2 | ... |
| Morehouse | 188.7 | 115.6 | 48.7 | 18.3 | 6.1 |
| Natchitoches | 554.5 | 293.9 | 155.3 | 94.3 | 11.1 |
| Ouachita | 230.2 | 134.3 | 51.2 | 32.0 | 12.8 |
| Pointe Coupee | 142.1 | 118.4 | 17.8 | 5.9 | ... |
| Rapides | 561.8 | 292.2 | 118.0 | 129.2 | 22.5 |
| Red River | 135.6 | 67.8 | 26.1 | 36.5 | 5.2 |
| Sabine | 462.6 | 237.1 | 98.3 | 121.4 | 5.8 |
| St. Charles | 58.8 | 36.7 | 11.0 | 7.3 | 3.7 |
| St. Helena | 178.6 | 105.8 | 26.5 | 46.3 | ... |
| St. James | 79.3 | 72.7 | 6.6 | ... | ... |
| St. John Baptist | 96.0 | 72.0 | ... | 8.0 | 16.0 |
| St. Landry | 188.8 | 134.9 | 37.8 | 10.8 | 5.4 |
| St. Martin | 305.4 | 201.6 | 73.3 | 6.1 | 24.4 |
| St. Mary | 139.4 | 90.9 | 6.1 | 12.1 | 30.3 |
| St. Tammany | 360.5 | 183.5 | 72.1 | 98.3 | 6.6 |
| Tangipahoa | 295.5 | 164.2 | 38.3 | 76.6 | 16.4 |
| Tensas | 114.0 | 74.1 | 28.5 | 5.7 | 5.7 |
| Terrebonne | 104.8 | 91.7 | 13.1 | ... | ... |
| Union | 477.1 | 280.3 | 101.4 | 65.6 | 29.8 |
| Vernon | 762.0 | 369.6 | 153.5 | 216.1 | 22.7 |
| Washington | 289.0 | 104.0 | 57.8 | 127.2 | ... |
| Webster | 290.5 | 145.2 | 94.7 | 50.5 | ... |
| West Feliciana | 158.6 | 128.1 | 18.3 | 6.1 | 6.1 |
| Winn | 576.1 | 288.0 | 88.6 | 188.3 | 11.1 |
| All parishes | 13872.6 | 8178.9 | 2718.9 | 2525.8 | 449.0 |

[1] Timberland less than 16.7 percent stocked.

[2] Lafayette and Vermilion included in Acadia.

[3] Franklin, Richland, and West Carroll included in East Carroll.

[4] West Baton Rouge included in Iberville.

Table 5--Area of timberland by parish and site class, Louisiana, 1984

| Parish | All classes | Site class (cubic feet/acre/year) | | | | |
|---|---|---|---|---|---|---|
| | | > 165 | 120-165 | 85-120 | 50-85 | < 50 |
| | Thousand acres | | | | | |
| Acadia [1] | 97.5 | ... | 5.1 | 51.3 | 41.1 | ... |
| Allen | 346.6 | 49.5 | 143.0 | 93.5 | 55.0 | 5.5 |
| Ascension | 84.9 | 6.1 | ... | 18.2 | 54.6 | 6.1 |
| Assumption | 144.0 | ... | 18.8 | 25.0 | 93.9 | 6.3 |
| Avoyelles | 166.2 | 10.7 | 32.2 | 64.3 | 59.0 | ... |
| Beauregard | 594.9 | 46.7 | 210.0 | 192.5 | 116.6 | 29.2 |
| Bienville | 437.0 | 21.9 | 163.9 | 207.6 | 43.7 | ... |
| Bossier | 367.0 | 80.9 | 145.7 | 97.1 | 37.8 | 5.4 |
| Caddo | 298.6 | 5.2 | 68.1 | 151.9 | 73.3 | ... |
| Calcasieu | 206.7 | 12.5 | 37.6 | 62.6 | 75.2 | 18.8 |
| Caldwell | 253.6 | 11.8 | 88.5 | 59.0 | 88.5 | 5.9 |
| Catahoula | 177.0 | 37.3 | 28.0 | 46.6 | 65.2 | ... |
| Claiborne | 398.3 | 45.7 | 169.8 | 137.1 | 45.7 | ... |
| Concordia | 151.0 | 72.9 | 10.4 | 31.2 | 31.2 | 5.2 |
| De Soto | 377.1 | 70.7 | 176.8 | 123.7 | 5.9 | ... |
| East Baton Rouge | 112.4 | 49.2 | 28.1 | 35.1 | ... | ... |
| East Carroll [2] | 178.3 | 72.9 | 32.4 | 64.8 | 8.1 | ... |
| East Feliciana | 172.1 | 34.4 | 68.8 | 55.1 | 13.8 | ... |
| Evangeline | 177.5 | 5.2 | 83.5 | 78.3 | 10.4 | ... |
| Grant | 334.0 | 30.9 | 154.6 | 105.1 | 37.1 | 6.2 |
| Iberia | 149.1 | ... | 7.1 | 35.5 | 99.4 | 7.1 |
| Iberville [3] | 332.7 | 35.0 | 29.2 | 175.1 | 87.6 | 5.8 |
| Jackson | 334.8 | 42.5 | 132.9 | 132.9 | 26.6 | ... |
| Jefferson Davis | 56.1 | 6.2 | 25.0 | 18.7 | ... | 6.2 |
| Lafourche | 143.7 | ... | ... | 45.7 | 78.4 | 19.6 |
| La Salle | 360.0 | 16.9 | 33.8 | 123.8 | 163.1 | 22.5 |
| Lincoln | 223.9 | 40.2 | 74.6 | 63.2 | 45.9 | ... |
| Livingston | 343.2 | 40.7 | 139.6 | 75.6 | 87.2 | ... |
| Madison | 104.6 | 43.1 | 43.1 | 12.3 | 6.2 | ... |
| Morehouse | 188.7 | 12.2 | 73.0 | 85.2 | 18.3 | ... |
| Natchitoches | 554.5 | 22.2 | 138.6 | 266.2 | 116.4 | 11.1 |
| Ouachita | 230.2 | 19.2 | 95.9 | 63.9 | 51.2 | ... |
| Pointe Coupee | 142.1 | 17.8 | 23.7 | 71.1 | 29.6 | ... |
| Rapides | 561.8 | 22.5 | 61.8 | 427.0 | 44.9 | 5.6 |
| Red River | 135.6 | 10.4 | 15.6 | 57.4 | 36.5 | 15.6 |
| Sabine | 462.6 | 69.4 | 213.9 | 167.7 | 11.6 | ... |
| St. Charles | 58.8 | 3.7 | 3.7 | 11.0 | 22.0 | 18.4 |
| St. Helena | 178.6 | 39.7 | 86.0 | 46.3 | 6.6 | ... |
| St. James | 79.3 | ... | ... | 13.2 | 46.3 | 19.8 |
| St. John Baptis | 96.0 | ... | ... | 8.0 | 64.0 | 24.0 |
| St. Landry | 188.8 | 16.2 | 10.8 | 75.5 | 80.9 | 5.4 |
| St. Martin | 305.4 | 30.5 | 12.2 | 134.4 | 103.8 | 24.4 |
| St. Mary | 139.4 | 6.1 | 24.2 | 12.1 | 90.9 | 6.1 |
| St. Tammany | 360.5 | 13.1 | 59.0 | 124.5 | 131.1 | 32.8 |
| Tangipahoa | 295.5 | 16.4 | 87.6 | 98.5 | 76.6 | 16.4 |
| Tensas | 114.0 | 68.4 | 17.1 | 22.8 | 5.7 | ... |
| Terrebonne | 104.8 | ... | 13.1 | ... | 85.1 | 6.5 |
| Union | 477.1 | 11.9 | 137.2 | 232.6 | 83.5 | 11.9 |
| Vernon | 762.0 | 62.5 | 221.8 | 358.2 | 108.0 | 11.4 |
| Washington | 289.0 | 17.3 | 40.5 | 86.7 | 144.5 | ... |
| Webster | 290.5 | 12.6 | 88.4 | 126.3 | 50.5 | 12.6 |
| West Feliciana | 158.6 | 54.9 | 30.5 | 48.8 | 24.4 | ... |
| Winn | 576.1 | 60.9 | 216.0 | 221.6 | 66.5 | 11.1 |
| All parishes | 13872.6 | 1477.1 | 3821.0 | 5142.1 | 3049.5 | 382.9 |

[1] Lafayette and Vermilion included in Acadia.

[2] Franklin, Richland, and West Carroll included in East Carroll.

[3] West Baton Rouge included in Iberville.

Table 6--Area of timberland, by parish and stocking classes of growing-stock trees, Louisiana, 1984

| Parish | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | > 130 | 100-130 | 60-100 | 16.7-60 | < 16.7 |
| | Thousand acres | | | | | |
| Acadia[1] | 97.5 | 10.3 | 10.3 | 41.1 | 30.8 | 5.1 |
| Allen | 346.6 | ... | 55.0 | 159.6 | 121.0 | 11.0 |
| Ascension | 84.9 | 6.1 | 30.3 | 18.2 | 30.3 | ... |
| Assumption | 144.0 | 6.3 | 31.3 | 87.7 | 12.5 | 6.3 |
| Avoyelles | 166.2 | ... | 21.4 | 69.7 | 64.3 | 10.7 |
| Beauregard | 594.9 | 35.0 | 110.8 | 280.0 | 151.6 | 17.5 |
| Bienville | 437.0 | 54.6 | 147.5 | 158.4 | 71.0 | 5.5 |
| Bossier | 367.0 | 32.4 | 113.3 | 134.9 | 75.6 | 10.8 |
| Caddo | 298.6 | 10.5 | 73.3 | 136.2 | 78.6 | ... |
| Calcasieu | 206.7 | ... | 50.1 | 87.7 | 56.4 | 12.5 |
| Caldwell | 253.6 | 17.7 | 11.8 | 141.5 | 70.8 | 11.8 |
| Catahoula | 177.0 | 18.6 | 37.3 | 83.9 | 37.3 | ... |
| Claiborne | 398.3 | 26.1 | 143.7 | 163.2 | 65.3 | ... |
| Concordia | 151.0 | ... | 31.2 | 78.1 | 36.4 | 5.2 |
| De Soto | 377.1 | 41.2 | 106.1 | 129.6 | 88.4 | 11.8 |
| East Baton Rouge | 112.4 | ... | 7.0 | 42.1 | 56.2 | 7.0 |
| East Carroll[2] | 178.3 | ... | 32.4 | 40.5 | 72.9 | 32.4 |
| East Feliciana | 172.1 | 6.9 | 41.3 | 55.1 | 61.9 | 6.9 |
| Evangeline | 177.5 | 10.4 | 52.2 | 62.6 | 52.2 | ... |
| Grant | 334.0 | 24.7 | 92.8 | 160.8 | 49.5 | 6.2 |
| Iberia | 149.1 | 14.2 | 14.2 | 56.8 | 56.8 | 7.1 |
| Iberville[3] | 332.7 | ... | 40.9 | 116.7 | 163.4 | 11.7 |
| Jackson | 334.8 | 21.3 | 106.3 | 148.8 | 47.8 | 10.6 |
| Jefferson Davis | 56.1 | ... | 12.5 | 37.4 | 6.2 | ... |
| Lafourche | 143.7 | 13.1 | 32.7 | 52.3 | 45.7 | ... |
| La Salle | 360.0 | 39.4 | 78.8 | 118.1 | 118.1 | 5.6 |
| Lincoln | 223.9 | 23.0 | 51.7 | 103.3 | 45.9 | ... |
| Livingston | 343.2 | 46.5 | 64.0 | 133.8 | 87.2 | 11.6 |
| Madison | 104.6 | ... | ... | 55.4 | 49.2 | ... |
| Morehouse | 188.7 | 6.1 | 60.9 | 54.8 | 60.9 | 6.1 |
| Natchitoches | 554.5 | 33.3 | 122.0 | 266.2 | 122.0 | 11.1 |
| Ouachita | 230.2 | 12.8 | 51.2 | 95.9 | 57.5 | 12.8 |
| Pointe Coupee | 142.1 | 5.9 | 23.7 | 82.9 | 29.6 | ... |
| Rapides | 561.8 | 33.7 | 129.2 | 264.1 | 112.4 | 22.5 |
| Red River | 135.6 | 5.2 | 36.5 | 46.9 | 41.7 | 5.2 |
| Sabine | 462.6 | 46.3 | 98.3 | 231.3 | 81.0 | 5.8 |
| St. Charles | 58.8 | ... | 11.0 | 29.4 | 14.7 | 3.7 |
| St. Helena | 178.6 | ... | 39.7 | 99.2 | 39.7 | ... |
| St. James | 79.3 | 13.2 | 19.8 | 26.4 | 19.8 | ... |
| St. John Baptist | 96.0 | 16.0 | 8.0 | 32.0 | 24.0 | 16.0 |
| St. Landry | 188.8 | ... | 43.2 | 86.3 | 53.9 | 5.4 |
| St. Martin | 305.4 | ... | 73.3 | 103.8 | 103.8 | 24.4 |
| St. Mary | 139.4 | 6.1 | 42.4 | 36.4 | 24.2 | 30.3 |
| St. Tammany | 360.5 | 32.8 | 78.6 | 144.2 | 98.3 | 6.6 |
| Tangipahoa | 295.5 | 16.4 | 43.8 | 136.8 | 82.1 | 16.4 |
| Tensas | 114.0 | 5.7 | 17.1 | 57.0 | 28.5 | 5.7 |
| Terrebonne | 104.8 | 6.5 | 52.4 | 13.1 | 32.7 | ... |
| Union | 477.1 | 59.6 | 131.2 | 137.2 | 119.3 | 29.8 |
| Vernon | 762.0 | 51.2 | 119.4 | 346.9 | 221.8 | 22.7 |
| Washington | 289.0 | 17.3 | 75.1 | 121.4 | 75.1 | ... |
| Webster | 290.5 | 31.6 | 63.2 | 145.2 | 50.5 | ... |
| West Feliciana | 158.6 | ... | 18.3 | 54.9 | 79.3 | 6.1 |
| Winn | 576.1 | 27.7 | 144.0 | 271.4 | 121.9 | 11.1 |
| All parishes | 13872.6 | 885.6 | 3102.4 | 5837.2 | 3598.4 | 449.0 |

[1] Lafayette and Vermilion included in Acadia.

[2] Franklin, Richland, and West Carroll included in East Carroll.

[3] West Baton Rouge included in Iberville.

Table 7--Area of timberland by forest type and ownership class, Louisiana, 1984

| Forest type[1] | All ownerships | National forest | Other public | Forest industry | Forest industry-leased | Other private |
|---|---|---|---|---|---|---|
| | Thousand acres | | | | | |
| Longleaf-slash pine | 933.2 | 108.0 | 17.9 | 274.1 | 187.6 | 345.5 |
| Loblolly-shortleaf pine | 4033.2 | 245.0 | 103.3 | 1417.7 | 152.6 | 2114.7 |
| Softwood total | 4966.4 | 353.0 | 121.2 | 1691.7 | 340.2 | 2460.3 |
| Oak-pine | 1913.3 | 111.0 | 49.3 | 635.5 | 91.3 | 1026.1 |
| Oak-hickory | 2170.7 | 97.8 | 23.9 | 661.5 | 107.2 | 1280.3 |
| Oak-gum-cypress | 4377.6 | 59.1 | 428.2 | 559.4 | 128.2 | 3202.7 |
| Elm-ash-cottonwood | 412.4 | ... | 87.2 | 41.4 | ... | 283.8 |
| Hardwood total | 8873.9 | 267.9 | 588.6 | 1897.7 | 326.7 | 5792.9 |
| Nontyped[2] | 32.3 | ... | ... | 13.6 | ... | 18.7 |
| All types | 13872.6 | 620.9 | 709.8 | 3603.1 | 666.8 | 8271.9 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

[2] Timberland with no current stocking.

Table 8--Area of timberland, by ownership and stocking classes of growing-stock trees, Louisiana, 1984

| Ownership class | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | > 130 | 100-130 | 60-100 | 16.7-60 | < 16.7 |
| | Thousand acres | | | | | |
| National forest | 620.9 | 30.4 | 170.2 | 305.0 | 115.3 | ... |
| Other public | 709.8 | 23.0 | 75.6 | 289.7 | 273.2 | 48.4 |
| Forest industry | 3603.1 | 287.8 | 880.1 | 1586.2 | 759.1 | 89.9 |
| Forest industry-leased | 666.8 | 53.2 | 128.1 | 282.5 | 180.3 | 22.8 |
| Other private | 8271.9 | 491.2 | 1848.5 | 3373.8 | 2270.5 | 287.9 |
| All ownerships | 13872.6 | 885.6 | 3102.4 | 5837.2 | 3598.4 | 449.0 |

Table 9--Area of timberland by forest type and stand-size class, Louisiana, 1984

| Forest type[1] | All classes | Stand-size class | | | Nonstocked areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | Thousand acres | | | | |
| Longleaf-slash pine | 933.2 | 451.7 | 281.6 | 187.9 | 12.0 |
| Loblolly-shortleaf pine | 4033.2 | 2497.4 | 663.7 | 859.0 | 13.1 |
| Softwood total | 4966.4 | 2949.1 | 945.3 | 1046.9 | 25.1 |
| Oak-pine | 1913.3 | 1044.8 | 383.9 | 473.5 | 11.0 |
| Oak-hickory | 2170.7 | 799.8 | 584.1 | 698.6 | 88.2 |
| Oak-gum-cypress | 4377.6 | 3157.9 | 702.2 | 258.0 | 259.4 |
| Elm-ash-cottonwood | 412.4 | 227.2 | 103.4 | 48.8 | 32.9 |
| Hardwood total | 8873.9 | 5229.8 | 1773.6 | 1478.9 | 391.6 |
| Nontyped[2] | 32.3 | ... | ... | ... | 32.3 |
| All types | 13872.6 | 8178.9 | 2718.9 | 2525.8 | 449.0 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood type.

[2] Timberland with no current stocking.

Table 10--Number of live trees on timberland by species and diameter class, Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| Longleaf-slash pines | 248502 | 68834 | 50229 | 44549 | 38679 | 24942 | 10163 | 5871 | 2995 | 1397 | 532 | 302 | 8 |
| Shortleaf-loblolly pine | 1761988 | 756717 | 406726 | 219756 | 128580 | 95674 | 59386 | 41120 | 25394 | 14553 | 7103 | 6638 | 341 |
| Other yellow pines | 8714 | 1134 | 2734 | 704 | 619 | 940 | 722 | 646 | 409 | 413 | 216 | 144 | 35 |
| Cypress | 157850 | 39382 | 27850 | 20565 | 17411 | 15362 | 11836 | 8525 | 6772 | 4172 | 2677 | 2927 | 371 |
| Other softwoods | 9504 | 7907 | 541 | 397 | 482 | 157 | ... | ... | ... | ... | ... | 11 | 9 |
| Total softwoods | 2186558 | 873974 | 488080 | 285971 | 185771 | 137075 | 82106 | 56161 | 35571 | 20535 | 10528 | 10022 | 764 |
| Select white oaks | 154351 | 90779 | 26971 | 13726 | 6833 | 5260 | 4279 | 2028 | 1601 | 1043 | 688 | 956 | 186 |
| Select red oaks | 71299 | 38106 | 13244 | 7630 | 2828 | 2643 | 1788 | 1615 | 982 | 858 | 557 | 891 | 158 |
| Other white oaks | 193259 | 103857 | 37347 | 16283 | 11629 | 7212 | 5515 | 3804 | 2644 | 1917 | 978 | 1745 | 328 |
| Other red oaks | 651603 | 411628 | 86492 | 44150 | 34065 | 24431 | 17348 | 9777 | 7372 | 5539 | 2979 | 6384 | 1439 |
| Hickory | 240945 | 148520 | 34470 | 23157 | 9570 | 8341 | 6107 | 4269 | 2529 | 1692 | 846 | 1229 | 215 |
| Hard maple | 14674 | 12175 | 1688 | 523 | ... | 68 | 108 | 77 | ... | ... | ... | 34 | ... |
| Soft maple | 684832 | 506376 | 106720 | 35306 | 17221 | 9455 | 4528 | 2398 | 1406 | 715 | 329 | 327 | 51 |
| Beech | 25134 | 11646 | 3094 | 1770 | 586 | 1619 | 1123 | 1211 | 1192 | 592 | 720 | 1349 | 232 |
| Sweetgum | 1064409 | 672790 | 200906 | 82325 | 44415 | 25287 | 15301 | 10687 | 5703 | 3006 | 2165 | 1714 | 112 |
| Tupelo-blackgum | 514961 | 276769 | 88292 | 42633 | 36217 | 26221 | 19640 | 12009 | 7022 | 3029 | 1466 | 1523 | 138 |
| Ash | 290597 | 185701 | 47192 | 20194 | 14058 | 8393 | 5422 | 3271 | 2553 | 1583 | 828 | 1282 | 121 |
| Cottonwood-aspen | 11480 | 1650 | 1642 | 1264 | 2722 | 1408 | 841 | 583 | 488 | 336 | 143 | 311 | 92 |
| Basswood | 4786 | 3102 | 540 | 856 | ... | 78 | 52 | 43 | 59 | ... | 21 | 17 | 18 |
| Yellow-poplar | 6070 | 2305 | 1063 | 415 | 689 | 169 | 507 | 284 | 166 | 204 | 140 | 98 | 31 |
| Black walnut | 317 | ... | ... | 304 | ... | ... | ... | ... | ... | ... | ... | 14 | ... |
| Other hardwoods | 1103145 | 770351 | 165220 | 68822 | 35850 | 20931 | 15150 | 9511 | 6666 | 4594 | 2076 | 3507 | 467 |
| Total hardwoods | 5031863 | 3235755 | 814882 | 359358 | 216683 | 141517 | 97707 | 61566 | 40385 | 25106 | 13937 | 21378 | 3588 |
| Noncommercial | 858569 | 676858 | 108404 | 46051 | 17768 | 5630 | 2536 | 745 | 128 | 136 | 103 | 154 | 55 |
| All species | 8076990 | 4786587 | 1411366 | 691381 | 420223 | 284222 | 182349 | 118472 | 76084 | 45777 | 24568 | 31555 | 4406 |

Table 11--Number of growing-stock trees on timberland by species and diameter class, Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | | | |
| ngleaf-slash pines | 209349 | 46282 | 41633 | 38752 | 37271 | 24486 | 10045 | 5690 | 2962 | 1397 | 532 | 291 | 8 |
| ortleaf-loblolly pine | 1373770 | 492556 | 319314 | 197080 | 121621 | 92568 | 57849 | 39773 | 24949 | 14270 | 6955 | 6500 | 335 |
| her yellow pines | 6730 | 533 | 1667 | 704 | 399 | 866 | 722 | 646 | 409 | 390 | 216 | 144 | 35 |
| press | 122822 | 21447 | 20580 | 18489 | 16265 | 12011 | 11018 | 7959 | 6415 | 3790 | 2364 | 2409 | 74 |
| her softwoods | 7205 | 6379 | ... | 397 | 260 | 157 | ... | ... | ... | ... | ... | 11 | ... |
| Total softwoods | 1719875 | 567197 | 383195 | 255422 | 175815 | 130088 | 79633 | 54068 | 34736 | 19847 | 10067 | 9355 | 451 |
| lect white oaks | 83530 | 34699 | 17859 | 11569 | 6226 | 4620 | 3501 | 1714 | 1299 | 791 | 531 | 651 | 68 |
| lect red oaks | 43903 | 17831 | 8597 | 6363 | 2828 | 2482 | 1604 | 1486 | 804 | 719 | 428 | 681 | 80 |
| her white oaks | 87149 | 30064 | 18658 | 11527 | 8739 | 5652 | 4267 | 2958 | 1917 | 1330 | 676 | 1175 | 186 |
| her red oaks | 308928 | 137619 | 48204 | 33699 | 28612 | 20570 | 14880 | 8203 | 5946 | 4247 | 2221 | 4126 | 601 |
| ckory | 85853 | 31154 | 15060 | 12807 | 7098 | 6809 | 4673 | 3260 | 2007 | 1304 | 610 | 924 | 147 |
| rd maple | 1269 | 540 | 579 | ... | ... | ... | 56 | 77 | ... | ... | ... | 17 | ... |
| ft maple | 152322 | 80060 | 39094 | 15788 | 9649 | 3959 | 1790 | 837 | 639 | 265 | 123 | 109 | 10 |
| ech | 9103 | 2221 | 1414 | 1021 | 217 | 922 | 686 | 644 | 705 | 334 | 357 | 561 | 20 |
| eetgum | 528373 | 258551 | 118879 | 62585 | 36641 | 21435 | 12051 | 8382 | 4515 | 2443 | 1730 | 1150 | 10 |
| pelo-blackgum | 184390 | 44754 | 35731 | 24786 | 25815 | 21120 | 13854 | 9152 | 5268 | 2050 | 1082 | 759 | 18 |
| h | 91266 | 37208 | 19348 | 10551 | 8187 | 5758 | 3705 | 2269 | 1963 | 953 | 604 | 697 | 23 |
| ttonwood-aspen | 8389 | 543 | 543 | 1060 | 2331 | 1322 | 841 | 539 | 458 | 310 | 122 | 265 | 57 |
| sswood | 1611 | 515 | 540 | 407 | ... | 78 | ... | 43 | 28 | ... | ... | ... | ... |
| llow-poplar | 4441 | 1166 | 1063 | 207 | 689 | 169 | 333 | 284 | 137 | 204 | 91 | 76 | 22 |
| her hardwoods | 305177 | 141227 | 63806 | 36605 | 24045 | 13518 | 9546 | 6243 | 3943 | 3048 | 1281 | 1774 | 141 |
| Total hardwoods | 1895705 | 818152 | 389375 | 228975 | 161077 | 108414 | 71788 | 46091 | 29629 | 17999 | 9856 | 12965 | 1383 |
| l species | 3615580 | 1385349 | 772570 | 484396 | 336892 | 238502 | 151422 | 100159 | 64365 | 37846 | 19923 | 22321 | 1834 |

Table 12--Volume of growing stock on timberland by species and diameter class, Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | | | |
| Longleaf-slash pines | 1228.7 | 96.6 | 248.0 | 293.8 | 196.4 | 170.7 | 106.6 | 65.9 | 29.6 | 19.8 | 1.5 |
| Shortleaf-loblolly pine | 7728.7 | 425.2 | 741.4 | 1119.7 | 1168.2 | 1196.9 | 1027.5 | 799.1 | 510.3 | 676.8 | 63.7 |
| Other yellow pines | 126.8 | 1.8 | 3.4 | 12.1 | 14.8 | 19.2 | 19.0 | 20.9 | 14.4 | 12.9 | 8.4 |
| Cypress | 1463.0 | 32.1 | 84.0 | 138.6 | 203.9 | 218.3 | 242.3 | 183.9 | 143.7 | 206.5 | 9.7 |
| Other softwoods | 4.7 | 0.6 | 0.7 | 2.0 | ... | ... | ... | ... | ... | 1.3 | ... |
| Total softwoods | 10552.0 | 556.3 | 1077.5 | 1566.2 | 1583.2 | 1605.1 | 1395.4 | 1069.7 | 697.9 | 917.4 | 83.3 |
| Select white oaks | 367.5 | 24.6 | 35.5 | 48.7 | 59.1 | 44.8 | 45.3 | 30.4 | 26.9 | 43.4 | 8.8 |
| Select red oaks | 297.7 | 15.5 | 17.1 | 28.7 | 32.0 | 41.4 | 30.8 | 36.3 | 28.6 | 54.1 | 13.2 |
| Other white oaks | 476.2 | 20.6 | 45.6 | 55.2 | 61.4 | 60.4 | 50.7 | 52.4 | 30.9 | 76.8 | 22.2 |
| Other red oaks | 1869.2 | 76.6 | 169.7 | 222.7 | 262.0 | 200.2 | 197.3 | 185.7 | 119.3 | 341.0 | 94.7 |
| Hickory | 562.5 | 32.8 | 39.7 | 68.9 | 82.6 | 80.2 | 62.6 | 61.1 | 33.4 | 77.0 | 24.2 |
| Hard maple | 3.2 | ... | ... | ... | 0.5 | 1.7 | ... | ... | ... | 1.0 | ... |
| Soft maple | 214.1 | 35.3 | 54.5 | 35.8 | 27.4 | 19.9 | 17.0 | 10.5 | 5.5 | 6.8 | 1.2 |
| Beech | 127.2 | 2.4 | 1.3 | 7.5 | 10.0 | 12.3 | 24.2 | 12.6 | 17.5 | 36.7 | 2.8 |
| Sweetgum | 1578.1 | 123.2 | 214.4 | 243.4 | 226.8 | 237.2 | 187.4 | 125.2 | 113.9 | 103.9 | 2.7 |
| Tupelo-blackgum | 1146.6 | 46.2 | 125.1 | 205.6 | 218.6 | 204.3 | 158.5 | 82.4 | 53.1 | 51.4 | 1.4 |
| Ash | 432.7 | 26.5 | 48.6 | 60.9 | 57.9 | 56.5 | 57.9 | 40.8 | 29.7 | 50.6 | 3.3 |
| Cottonwood-aspen | 170.1 | 3.2 | 14.0 | 16.5 | 17.9 | 19.2 | 17.7 | 16.9 | 9.8 | 37.0 | 17.9 |
| Basswood | 5.1 | 1.3 | ... | 0.8 | ... | 1.6 | 1.5 | ... | ... | ... | ... |
| Yellow-poplar | 52.6 | 0.5 | 4.8 | 2.1 | 7.8 | 8.3 | 5.2 | 9.3 | 5.1 | 5.7 | 3.7 |
| Other hardwoods | 1137.1 | 74.0 | 128.2 | 132.7 | 158.2 | 149.4 | 126.0 | 123.8 | 74.0 | 149.8 | 21.0 |
| Total hardwoods | 8440.0 | 482.7 | 898.4 | 1129.7 | 1222.5 | 1137.4 | 982.0 | 787.4 | 547.8 | 1035.2 | 216.9 |
| All species | 18992.0 | 1039.0 | 1976.0 | 2695.8 | 2805.7 | 2742.5 | 2377.4 | 1857.1 | 1245.7 | 1952.5 | 300.2 |

Table 13--Volume of growing stock in the saw-log portion of sawtimber[1] trees on timberland by species and diameter class, Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | |
| Longleaf-slash pines | 719.4 | 230.8 | 158.6 | 139.7 | 89.1 | 56.2 | 26.0 | 17.7 | 1.3 |
| Shortleaf-loblolly pine | 5988.3 | 948.5 | 1025.7 | 1082.3 | 952.2 | 756.7 | 490.7 | 668.4 | 63.7 |
| Other yellow pines | 112.0 | 10.7 | 13.5 | 17.4 | 17.5 | 19.2 | 13.5 | 12.3 | 8.0 |
| Cypress | 1099.3 | 36.4 | 161.7 | 181.7 | 210.1 | 166.1 | 133.4 | 200.0 | 9.7 |
| Other softwoods | 3.2 | 1.8 | ... | ... | ... | ... | ... | 1.3 | ... |
| Total softwoods | 7922.1 | 1228.3 | 1359.5 | 1421.0 | 1269.0 | 998.2 | 663.6 | 899.8 | 82.8 |
| Select white oaks | 215.0 | ... | 46.6 | 36.0 | 37.9 | 25.8 | 23.5 | 37.3 | 7.9 |
| Select red oaks | 198.9 | ... | 25.5 | 33.8 | 25.5 | 30.7 | 24.2 | 47.0 | 12.1 |
| Other white oaks | 300.1 | ... | 49.3 | 48.9 | 42.5 | 44.5 | 26.7 | 67.8 | 20.3 |
| Other red oaks | 1179.8 | ... | 209.7 | 162.8 | 165.7 | 156.8 | 102.2 | 297.7 | 84.8 |
| Hickory | 359.0 | ... | 65.9 | 65.5 | 53.4 | 52.3 | 29.2 | 69.7 | 23.1 |
| Hard maple | 2.7 | ... | 0.4 | 1.4 | ... | ... | ... | 0.9 | ... |
| Soft maple | 73.1 | ... | 21.2 | 16.4 | 14.1 | 8.9 | 4.9 | 6.4 | 1.2 |
| Beech | 100.9 | ... | 8.2 | 10.2 | 20.4 | 10.9 | 15.2 | 33.2 | 2.8 |
| Sweetgum | 867.8 | ... | 172.1 | 195.9 | 168.3 | 117.7 | 109.8 | 101.3 | 2.6 |
| Tupelo-blackgum | 664.7 | ... | 173.9 | 172.0 | 139.9 | 76.6 | 50.3 | 50.6 | 1.4 |
| Ash | 247.9 | ... | 44.9 | 45.7 | 47.8 | 34.9 | 25.5 | 45.9 | 3.2 |
| Cottonwood-aspen | 115.8 | ... | 13.1 | 15.1 | 14.5 | 14.1 | 8.5 | 33.1 | 17.3 |
| Basswood | 2.5 | ... | ... | 1.3 | 1.3 | ... | ... | ... | ... |
| Yellow-poplar | 38.9 | ... | 6.0 | 7.0 | 4.3 | 8.0 | 4.6 | 5.3 | 3.6 |
| Other hardwoods | 670.4 | ... | 121.8 | 119.8 | 104.2 | 105.4 | 63.9 | 135.2 | 20.0 |
| Total hardwoods | 5037.4 | ... | 958.8 | 932.1 | 839.6 | 686.7 | 488.4 | 931.4 | 200.4 |
| All species | 12959.5 | 1228.3 | 2318.2 | 2353.0 | 2108.7 | 1684.9 | 1152.1 | 1831.2 | 283.1 |

[1] That part of the bole of sawtimber trees between the 1-foot stump and the saw-log top, including the portion of the forks large enough to contain a saw log.

Table 14--Volume of sawtimber on timberland by species and diameter class, Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million board feet | | | | | | | | |
| Longleaf-slash pines | 3780.8 | 1105.8 | 807.7 | 756.7 | 502.1 | 331.2 | 155.9 | 112.5 | 9.1 |
| Shortleaf-loblolly pine | 35814.1 | 4546.5 | 5453.7 | 6245.4 | 5871.9 | 4928.3 | 3350.0 | 4921.0 | 497.4 |
| Other yellow pines | 631.0 | 54.1 | 69.1 | 95.5 | 97.5 | 111.0 | 78.6 | 73.5 | 51.8 |
| Cypress | 5201.8 | 170.5 | 634.8 | 784.3 | 968.2 | 801.6 | 679.9 | 1103.3 | 59.2 |
| Other softwoods | 17.7 | 9.5 | ... | ... | ... | ... | ... | 8.2 | ... |
| Total softwoods | 45445.4 | 5886.3 | 6965.3 | 7881.9 | 7439.6 | 6172.1 | 4264.3 | 6218.4 | 617.5 |
| Select white oaks | 1090.2 | ... | 202.4 | 171.9 | 188.5 | 133.6 | 128.9 | 216.4 | 48.6 |
| Select red oaks | 1039.1 | ... | 113.0 | 159.4 | 127.8 | 160.0 | 132.5 | 273.0 | 73.4 |
| Other white oaks | 1621.4 | ... | 224.4 | 237.9 | 217.7 | 244.2 | 151.0 | 410.8 | 135.3 |
| Other red oaks | 6254.1 | ... | 930.6 | 771.9 | 828.4 | 846.2 | 567.0 | 1761.2 | 548.8 |
| Hickory | 1841.8 | ... | 290.3 | 304.3 | 263.6 | 271.5 | 157.9 | 407.4 | 146.8 |
| Hard maple | 13.9 | ... | 2.1 | 6.7 | ... | ... | ... | 5.2 | ... |
| Soft maple | 334.2 | ... | 85.6 | 70.1 | 66.5 | 44.7 | 25.9 | 34.5 | 6.9 |
| Beech | 542.6 | ... | 36.2 | 49.0 | 102.1 | 58.4 | 83.3 | 195.8 | 17.9 |
| Sweetgum | 4226.3 | ... | 655.9 | 866.9 | 809.8 | 624.3 | 625.4 | 627.0 | 16.9 |
| Tupelo-blackgum | 2999.2 | ... | 680.7 | 740.2 | 645.5 | 376.0 | 262.0 | 286.3 | 8.5 |
| Ash | 1208.1 | ... | 181.6 | 205.4 | 228.3 | 175.4 | 134.6 | 261.9 | 21.0 |
| Cottonwood-aspen | 610.4 | ... | 54.8 | 68.7 | 67.0 | 70.1 | 45.1 | 190.8 | 114.0 |
| Basswood | 13.0 | ... | ... | 6.2 | 6.8 | ... | ... | ... | ... |
| Yellow-poplar | 202.0 | ... | 23.6 | 31.5 | 21.0 | 41.2 | 25.1 | 32.2 | 27.5 |
| Other hardwoods | 3293.3 | ... | 509.1 | 540.5 | 491.7 | 526.0 | 336.1 | 764.2 | 125.8 |
| Total hardwoods | 25289.8 | ... | 3990.2 | 4230.5 | 4064.7 | 3571.5 | 2674.7 | 5466.7 | 1291.5 |
| All species | 70735.2 | 5886.3 | 10955.5 | 12112.3 | 11504.2 | 9743.7 | 6939.0 | 11685.1 | 1909.0 |

Table 15--Volume of growing stock and sawtimber on timberland by parish and species group, Louisiana, 1984

| Parish | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Acadia[3] | 130.7 | ... | 13.9 | 10.1 | 82.4 | 24.2 | 424.3 | ... | 71.6 | 39.5 | 221.6 | 91.7 |
| Allen | 387.4 | 73.2 | 188.1 | 3.1 | 63.3 | 59.7 | 1639.9 | 225.8 | 1011.6 | 12.2 | 200.6 | 189.7 |
| Ascension | 150.6 | ... | 24.3 | 18.6 | 63.2 | 44.5 | 487.9 | ... | 117.9 | 69.5 | 161.4 | 139.2 |
| Assumption | 254.3 | ... | ... | 128.5 | 106.4 | 19.4 | 704.2 | ... | ... | 431.6 | 227.5 | 45.1 |
| Avoyelles | 229.7 | ... | 24.0 | 40.7 | 57.3 | 107.7 | 822.9 | ... | 107.9 | 143.8 | 169.8 | 401.5 |
| Beauregard | 701.5 | 322.6 | 196.3 | 6.1 | 78.2 | 98.2 | 2212.4 | 810.4 | 790.4 | 28.1 | 276.8 | 306.7 |
| Bienville | 684.2 | 165.1 | 289.0 | 7.3 | 88.0 | 134.7 | 2673.2 | 514.1 | 1458.0 | 35.2 | 228.5 | 437.5 |
| Bossier | 632.7 | 9.2 | 378.2 | 3.9 | 69.3 | 172.1 | 2527.7 | 24.3 | 1841.8 | 13.6 | 169.0 | 479.1 |
| Caddo | 358.1 | ... | 189.9 | ... | 62.9 | 105.3 | 1285.2 | ... | 812.8 | ... | 151.1 | 321.3 |
| Calcasieu | 187.9 | 30.1 | 113.5 | 6.2 | 16.3 | 21.7 | 702.6 | 24.5 | 552.6 | 24.4 | 32.5 | 68.7 |
| Caldwell | 314.9 | 20.8 | 125.8 | ... | 36.9 | 131.4 | 1354.1 | 86.8 | 696.5 | ... | 99.2 | 471.7 |
| Catahoula | 173.3 | 2.8 | 64.5 | 3.9 | 31.8 | 70.3 | 653.1 | ... | 266.4 | 16.3 | 94.6 | 275.8 |
| Claiborne | 621.7 | 97.8 | 294.2 | 2.0 | 99.5 | 128.2 | 2168.8 | 404.9 | 1249.7 | 8.2 | 180.9 | 325.2 |
| Concordia | 255.1 | ... | ... | 8.4 | 148.6 | 98.1 | 1021.6 | ... | ... | 48.1 | 515.6 | 457.9 |
| De Soto | 527.0 | 39.5 | 324.9 | 9.0 | 64.4 | 89.2 | 2065.8 | 150.0 | 1455.4 | 42.2 | 144.1 | 274.1 |
| East Baton Rouge | 130.5 | ... | 5.3 | 16.1 | 52.3 | 56.8 | 416.9 | ... | 8.1 | 62.2 | 156.3 | 190.3 |
| East Carroll[4] | 219.8 | 14.3 | ... | 6.8 | 134.7 | 63.9 | 830.9 | 65.9 | ... | 22.5 | 466.1 | 276.5 |
| East Feliciana | 294.8 | 30.3 | 173.9 | ... | 31.2 | 59.4 | 1282.6 | 135.5 | 863.8 | ... | 71.8 | 211.5 |
| Evangeline | 309.0 | 15.8 | 177.2 | 1.5 | 62.3 | 52.1 | 1293.4 | 36.4 | 884.2 | 0.6 | 200.6 | 171.5 |
| Grant | 580.3 | 17.8 | 376.3 | 3.3 | 50.1 | 132.9 | 2630.8 | 51.9 | 2031.5 | 11.9 | 164.1 | 371.3 |
| Iberia | 190.2 | ... | ... | 94.5 | 60.3 | 35.4 | 510.6 | ... | ... | 263.3 | 151.0 | 96.3 |
| Iberville[5] | 432.5 | ... | ... | 89.6 | 202.9 | 140.0 | 1559.7 | ... | ... | 339.1 | 700.1 | 520.5 |
| Jackson | 469.1 | 39.6 | 258.0 | 2.1 | 44.9 | 124.5 | 1884.4 | 129.3 | 1269.7 | 5.6 | 126.8 | 353.1 |
| Jefferson Davis | 93.6 | ... | 55.0 | ... | 13.3 | 25.3 | 420.7 | ... | 298.0 | ... | 37.0 | 85.6 |
| Lafourche | 315.6 | ... | ... | 139.2 | 121.9 | 54.4 | 1116.4 | ... | ... | 583.3 | 387.7 | 145.4 |
| La Salle | 407.7 | 75.9 | 164.4 | 5.7 | 31.2 | 130.4 | 1567.6 | 278.5 | 702.4 | 19.4 | 80.9 | 486.3 |
| Lincoln | 352.4 | 34.7 | 192.6 | ... | 49.7 | 75.3 | 1364.9 | 144.3 | 857.2 | ... | 130.9 | 232.5 |
| Livingston | 496.9 | 23.0 | 236.7 | 33.1 | 129.8 | 74.2 | 1707.8 | 63.7 | 1015.3 | 112.4 | 250.4 | 266.0 |
| Madison | 140.8 | ... | ... | ... | 71.4 | 69.5 | 531.7 | ... | ... | ... | 218.1 | 313.6 |
| Morehouse | 269.2 | 25.2 | 105.9 | ... | 28.4 | 109.8 | 1154.1 | 89.5 | 559.3 | ... | 99.9 | 405.5 |
| Natchitoches | 712.1 | 32.7 | 435.9 | 4.8 | 81.3 | 157.4 | 2649.4 | 136.5 | 2026.7 | 13.2 | 137.1 | 335.8 |
| Ouachita | 311.5 | 12.4 | 129.5 | 24.3 | 36.1 | 109.3 | 1059.9 | 8.5 | 633.8 | 75.0 | 43.5 | 299.0 |
| Pointe Coupee | 248.2 | ... | ... | 11.8 | 128.6 | 107.8 | 920.8 | ... | ... | 52.4 | 439.7 | 428.6 |
| Rapides | 712.3 | 37.2 | 418.7 | 19.3 | 93.9 | 143.3 | 2880.6 | 68.2 | 2015.4 | 57.1 | 300.7 | 439.2 |
| Red River | 153.2 | 10.6 | 61.9 | ... | 35.2 | 45.5 | 564.0 | 35.6 | 276.2 | ... | 82.1 | 170.2 |
| Sabine | 619.6 | 74.1 | 377.2 | 0.9 | 69.7 | 97.7 | 2544.5 | 253.2 | 1855.8 | 2.9 | 125.8 | 306.7 |
| St. Charles | 83.1 | ... | ... | 29.2 | 38.0 | 15.9 | 259.3 | ... | ... | 122.3 | 114.8 | 22.2 |
| St. Helena | 246.8 | 13.2 | 178.0 | ... | 21.0 | 34.6 | 1002.9 | 50.9 | 811.3 | ... | 26.7 | 113.9 |
| St. James | 206.7 | ... | ... | 93.8 | 61.2 | 51.7 | 675.7 | ... | ... | 391.3 | 147.3 | 137.1 |
| St. John Baptist | 198.1 | ... | ... | 106.3 | 82.7 | 9.2 | 700.5 | ... | ... | 447.8 | 229.3 | 23.3 |
| St. Landry | 332.8 | ... | 7.2 | 49.0 | 146.2 | 130.4 | 1226.2 | ... | 24.9 | 173.5 | 497.9 | 529.9 |
| St. Martin | 446.5 | ... | ... | 141.8 | 238.0 | 66.8 | 1294.4 | ... | ... | 477.0 | 708.9 | 108.4 |
| St. Mary | 190.6 | ... | ... | 76.1 | 92.8 | 21.6 | 498.1 | ... | ... | 248.0 | 204.6 | 45.5 |
| St. Tammany | 437.0 | 24.8 | 230.0 | 17.6 | 90.3 | 74.3 | 1526.6 | 34.7 | 950.3 | 59.1 | 213.9 | 268.6 |
| Tangipahoa | 317.6 | 42.1 | 138.8 | 30.1 | 53.3 | 53.3 | 1117.5 | 121.0 | 655.6 | 40.9 | 131.1 | 168.9 |
| Tensas | 193.8 | ... | ... | ... | 103.9 | 89.9 | 695.7 | ... | ... | ... | 358.9 | 336.8 |
| Terrebonne | 233.7 | ... | ... | 136.9 | 75.5 | 21.3 | 704.3 | ... | ... | 404.1 | 262.2 | 38.0 |
| Union | 666.6 | 117.7 | 283.3 | 18.0 | 94.3 | 153.3 | 2522.7 | 516.9 | 1232.7 | 81.2 | 250.0 | 441.9 |
| Vernon | 759.0 | 161.7 | 418.4 | 1.4 | 79.7 | 97.7 | 2684.2 | 444.9 | 1811.4 | 2.3 | 170.7 | 255.0 |
| Washington | 274.6 | 17.8 | 132.0 | 9.9 | 49.6 | 65.2 | 973.3 | 28.6 | 595.8 | 36.4 | 128.7 | 183.8 |
| Webster | 415.7 | 3.4 | 233.3 | 5.2 | 58.3 | 115.6 | 1549.9 | 16.8 | 1152.0 | 8.5 | 92.8 | 279.8 |
| West Feliciana | 206.3 | ... | 38.4 | 31.9 | 82.0 | 53.9 | 731.2 | ... | 170.3 | 129.9 | 246.3 | 184.8 |
| Winn | 714.3 | 92.2 | 351.5 | 19.6 | 82.7 | 168.2 | 2937.6 | 288.8 | 1851.3 | 63.6 | 222.0 | 512.0 |
| All parishes | 18992.0 | 1678.0 | 7406.2 | 1467.8 | 4047.5 | 4392.5 | 70735.2 | 5240.4 | 34985.5 | 5219.5 | 11249.9 | 14039.9 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Lafayette and Vermilion included in Acadia.

[4] Franklin, Richland, and West Carroll included in East Carroll.

[5] West Baton Rouge included in Iberville.

Table 16--Volume of timber on timberland by class of timber and species group, Louisiana, 1984

| Class of timber | All species | Softwood | | | Hardwood | |
|---|---|---|---|---|---|---|
| | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | |
| | Million cubic feet | | | | | |
| Sawtimber trees: | | | | | | |
| Saw-log portion | 12959.5 | 979.5 | 5840.3 | 1102.4 | 2342.2 | 2695.2 |
| Upper-stem portion | 1887.9 | 169.3 | 578.9 | 247.9 | 390.4 | 501.4 |
| Total | 14847.4 | 1148.7 | 6419.2 | 1350.3 | 2732.5 | 3196.7 |
| Poletimber trees | 4144.6 | 529.3 | 987.1 | 117.5 | 1314.9 | 1195.9 |
| All growing-stock trees | 18992.0 | 1678.0 | 7406.2 | 1467.8 | 4047.5 | 4392.5 |
| Rough trees: | | | | | | |
| Sawtimber size | 1597.7 | 18.1 | 113.3 | 99.9 | 685.6 | 680.8 |
| Poletimber size | 787.7 | 23.5 | 62.5 | 7.0 | 278.2 | 416.5 |
| Total | 2385.4 | 41.5 | 175.8 | 106.9 | 963.8 | 1097.4 |
| Rotten trees: | | | | | | |
| Sawtimber size | 607.6 | 1.1 | 8.9 | 58.4 | 185.9 | 353.2 |
| Poletimber size | 38.4 | 0.1 | ... | ... | 20.5 | 17.8 |
| Total | 646.0 | 1.2 | 8.9 | 58.5 | 206.3 | 371.0 |
| Salvable dead trees: | | | | | | |
| Sawtimber size | 134.9 | 14.3 | 54.7 | 3.2 | 20.5 | 42.2 |
| Poletimber size | 50.6 | 9.8 | 25.1 | ... | 4.6 | 11.1 |
| Total | 185.5 | 24.0 | 79.9 | 3.2 | 25.1 | 53.3 |
| All classes | 22208.9 | 1744.8 | 7670.8 | 1636.4 | 5242.7 | 5914.2 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 17--Volume of live trees and growing stock on timberland by ownership class and species group, Louisiana, 1984

| Ownership class | Live trees | | | | | | Growing stock | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | | | | | | |
| National forest | 1153.3 | 117.2 | 644.0 | 26.4 | 113.8 | 251.9 | 1064.3 | 115.2 | 637.6 | 21.8 | 90.8 | 199.0 |
| Other public | 1116.6 | ... | 230.8 | 60.6 | 337.3 | 487.9 | 894.4 | ... | 226.1 | 51.0 | 230.9 | 386.2 |
| Forest industry | 4939.0 | 685.0 | 2078.8 | 88.7 | 827.7 | 1258.7 | 4431.1 | 669.3 | 2031.7 | 78.4 | 674.3 | 977.3 |
| Forest industry-leased | 808.5 | 169.6 | 288.1 | 19.2 | 150.5 | 181.2 | 699.5 | 163.5 | 281.6 | 17.2 | 117.9 | 119.3 |
| Other private | 14006.0 | 748.9 | 4349.2 | 1438.3 | 3788.3 | 3681.2 | 11902.7 | 730.1 | 4229.2 | 1299.3 | 2933.6 | 2710.6 |
| All ownerships | 22023.4 | 1720.7 | 7590.9 | 1633.2 | 5217.6 | 5860.9 | 18992.0 | 1678.0 | 7406.2 | 1467.8 | 4047.5 | 4392.5 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 18--Average net annual growth of growing stock and sawtimber on timberland by parish and species group, Louisiana, 1984

| Parish | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Acadia[3] | 4.2 | ... | 0.9 | 0.2 | 1.9 | 1.1 | 21.3 | ... | 5.1 | 1.2 | 9.5 | 5.5 |
| Allen | 20.0 | 6.8 | 9.0 | 0.1 | 2.0 | 2.1 | 90.0 | 18.6 | 54.0 | 0.7 | 7.4 | 9.3 |
| Ascension | 5.2 | ... | 1.1 | 0.6 | 1.5 | 2.1 | 21.8 | ... | 6.9 | 2.2 | 4.7 | 8.0 |
| Assumption | 1.1 | ... | ... | 1.1 | -0.7 | 0.8 | 12.7 | ... | ... | 6.4 | 3.6 | 2.8 |
| Avoyelles | 6.8 | ... | 1.4 | 0.7 | 1.6 | 3.1 | 32.7 | ... | 7.9 | 3.6 | 7.0 | 14.2 |
| Beauregard | 39.9 | 19.7 | 10.9 | ... | 3.9 | 5.4 | 145.2 | 60.6 | 48.4 | 0.2 | 15.1 | 20.8 |
| Bienville | 45.9 | 13.8 | 18.6 | 0.2 | 4.1 | 9.3 | 190.2 | 45.2 | 101.2 | 1.4 | 10.8 | 31.6 |
| Bossier | 31.5 | 1.1 | 19.0 | 0.1 | 3.2 | 8.2 | 148.8 | 5.5 | 108.1 | 0.3 | 8.9 | 25.9 |
| Caddo | 18.6 | ... | 11.5 | ... | 2.5 | 4.6 | 74.6 | ... | 52.7 | ... | 6.9 | 14.9 |
| Calcasieu | 8.9 | 3.1 | 5.4 | 0.2 | -0.1 | 0.4 | 35.6 | 3.8 | 29.8 | 0.8 | -0.1 | 1.4 |
| Caldwell | 14.6 | 1.5 | 6.6 | ... | 1.6 | 4.9 | 74.5 | 7.6 | 41.4 | ... | 4.7 | 20.9 |
| Catahoula | 7.5 | 0.5 | 3.8 | ... | 0.9 | 2.3 | 31.7 | 0.7 | 19.5 | 0.3 | 2.6 | 8.6 |
| Claiborne | 41.1 | 6.2 | 20.2 | 0.2 | 5.4 | 9.1 | 163.4 | 27.5 | 95.5 | 0.8 | 11.2 | 28.3 |
| Concordia | 10.8 | ... | ... | 0.5 | 6.3 | 4.1 | 55.0 | ... | ... | 3.0 | 29.9 | 22.2 |
| De Soto | 25.9 | 2.1 | 16.6 | -0.1 | 3.9 | 3.4 | 125.6 | 9.8 | 92.1 | -0.4 | 9.3 | 14.9 |
| East Baton Rouge | 5.1 | ... | 0.6 | 0.1 | 2.2 | 2.2 | 21.1 | ... | 1.0 | 0.4 | 9.4 | 10.4 |
| East Carroll[4] | 8.5 | 1.4 | ... | ... | 4.5 | 2.5 | 41.9 | 5.9 | 0.1 | 0.5 | 21.9 | 13.5 |
| East Feliciana | 11.8 | 1.0 | 6.9 | ... | 1.0 | 2.9 | 66.1 | 5.7 | 45.8 | ... | 3.0 | 11.5 |
| Evangeline | 13.0 | 1.7 | 8.8 | ... | 0.7 | 1.8 | 68.0 | 3.2 | 54.9 | 0.1 | 4.7 | 5.1 |
| Grant | 26.0 | 3.0 | 15.6 | 0.2 | 1.9 | 5.2 | 129.2 | 9.5 | 95.2 | 1.0 | 6.0 | 17.4 |
| Iberia | 3.9 | ... | ... | 1.0 | 1.3 | 1.6 | 18.4 | ... | ... | 8.5 | 4.6 | 5.3 |
| Iberville[5] | 7.1 | ... | ... | 1.0 | 4.1 | 1.9 | 35.2 | ... | ... | 8.1 | 16.9 | 10.3 |
| Jackson | 27.4 | 3.2 | 14.6 | ... | 1.9 | 7.7 | 132.6 | 17.3 | 83.9 | ... | 6.8 | 24.6 |
| Jefferson Davis | 3.5 | ... | 2.6 | ... | 0.2 | 0.8 | 20.4 | ... | 17.2 | ... | ... | 3.2 |
| Lafourche | 6.5 | ... | ... | 3.0 | 1.8 | 1.6 | 33.6 | ... | ... | 16.7 | 9.5 | 7.4 |
| La Salle | 22.4 | 6.1 | 9.8 | 0.3 | 1.4 | 4.8 | 94.9 | 24.4 | 45.4 | 1.3 | 2.9 | 20.8 |
| Lincoln | 20.1 | 2.5 | 11.7 | ... | 2.0 | 3.8 | 89.7 | 10.4 | 58.6 | ... | 6.4 | 14.2 |
| Livingston | 18.1 | 1.8 | 13.1 | 0.6 | 0.7 | 1.9 | 74.1 | 6.0 | 56.1 | ... | 3.4 | 8.6 |
| Madison | 4.2 | ... | ... | ... | 1.8 | 2.3 | 18.8 | ... | ... | ... | 5.7 | 13.1 |
| Morehouse | 12.3 | 2.6 | 4.9 | ... | 0.8 | 4.1 | 53.8 | 7.5 | 29.7 | ... | 3.6 | 13.1 |
| Natchitoches | 31.6 | 2.1 | 20.2 | 0.1 | 3.6 | 5.7 | 143.1 | 9.2 | 111.7 | 0.1 | 6.8 | 15.3 |
| Ouachita | 13.2 | 1.1 | 6.8 | 0.5 | 1.4 | 3.3 | 52.0 | 1.7 | 35.8 | 3.3 | 1.9 | 9.3 |
| Pointe Coupee | 10.0 | ... | ... | 0.2 | 5.4 | 4.5 | 42.7 | ... | ... | 1.0 | 22.3 | 19.4 |
| Rapides | 33.4 | 5.2 | 19.3 | 0.3 | 2.4 | 6.2 | 141.0 | 13.1 | 95.0 | 1.4 | 7.9 | 23.6 |
| Red River | 7.9 | -0.2 | 3.6 | ... | 1.5 | 3.1 | 45.4 | 4.6 | 21.9 | ... | 4.7 | 14.2 |
| Sabine | 37.2 | 6.5 | 22.5 | ... | 3.0 | 5.2 | 178.3 | 29.3 | 122.0 | 0.2 | 7.4 | 19.4 |
| St. Charles | 2.9 | ... | ... | 0.2 | 1.9 | 0.8 | 8.7 | ... | ... | 1.2 | 6.4 | 1.1 |
| St. Helena | 14.6 | 1.7 | 10.9 | ... | 0.6 | 1.6 | 67.1 | 6.0 | 55.9 | ... | -0.4 | 5.5 |
| St. James | 3.1 | ... | ... | 1.7 | -0.4 | 1.8 | 16.8 | ... | ... | 8.5 | 1.0 | 7.3 |
| St. John Baptist | -0.7 | ... | ... | 0.8 | -1.5 | ... | 7.4 | ... | ... | 6.9 | 0.2 | 0.3 |
| St. Landry | 13.2 | ... | 0.4 | 1.2 | 6.3 | 5.2 | 59.4 | ... | 2.2 | 5.7 | 25.9 | 25.5 |
| St. Martin | 10.7 | ... | ... | 2.9 | 5.2 | 2.6 | 43.6 | ... | ... | 13.7 | 22.5 | 7.3 |
| St. Mary | 3.0 | ... | ... | 1.3 | 1.4 | 0.3 | 13.2 | ... | ... | 7.6 | 4.2 | 1.3 |
| St. Tammany | 15.3 | 2.6 | 7.6 | 0.5 | 2.1 | 2.6 | 71.0 | 6.4 | 42.7 | 1.9 | 7.7 | 12.2 |
| Tangipahoa | 12.0 | 3.0 | 6.7 | 1.4 | -0.4 | 1.3 | 55.6 | 11.7 | 37.4 | 2.7 | -1.6 | 5.4 |
| Tensas | 7.9 | ... | ... | ... | 4.6 | 3.3 | 32.3 | ... | ... | ... | 14.7 | 17.7 |
| Terrebonne | 3.4 | ... | ... | 3.1 | 0.2 | 0.1 | 19.2 | ... | ... | 11.8 | 6.5 | 0.9 |
| Union | 32.6 | 5.9 | 16.7 | 0.3 | 3.5 | 6.3 | 136.7 | 32.3 | 75.5 | 1.7 | 5.6 | 21.6 |
| Vernon | 42.9 | 13.8 | 25.2 | 0.1 | 1.3 | 2.5 | 172.4 | 40.5 | 121.3 | 0.3 | 1.4 | 9.0 |
| Washington | 15.1 | 2.2 | 7.9 | 0.2 | 0.9 | 4.0 | 61.0 | 6.5 | 41.2 | 0.7 | 1.2 | 11.4 |
| Webster | 22.1 | 1.0 | 12.6 | ... | 2.4 | 6.2 | 98.4 | 4.2 | 71.1 | 0.2 | 4.3 | 18.6 |
| West Feliciana | 4.4 | ... | 0.4 | 0.1 | 3.0 | 0.9 | 25.0 | ... | 5.2 | 1.7 | 13.0 | 5.1 |
| Winn | 31.4 | 6.4 | 16.8 | -0.2 | 2.6 | 5.8 | 156.6 | 24.2 | 100.4 | 1.2 | 9.8 | 21.0 |
| All parishes | 839.4 | 129.2 | 391.2 | 25.0 | 115.0 | 179.0 | 3767.7 | 459.0 | 2089.8 | 128.9 | 409.8 | 680.2 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Lafayette and Vermilion included in Acadia.

[4] Franklin, Richland, and West Carroll included in East Carroll.

[5] West Baton Rouge included in Iberville.

Table 19--Average annual removals of growing stock and sawtimber by parish and species group, Louisiana, 1984

| Parish | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | Million board feet | | | | | |
| Acadia[3] | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Allen | 16.9 | 6.5 | 6.6 | 0.1 | 1.4 | 2.2 | 69.9 | 20.0 | 36.5 | 0.6 | 4.8 | 8.0 |
| Ascension | 2.5 | ... | ... | ... | 1.1 | 1.4 | 5.6 | ... | ... | ... | 2.1 | 3.5 |
| Assumption | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Avoyelles | 5.1 | ... | 0.2 | 1.1 | 1.0 | 2.7 | 17.3 | ... | ... | 4.8 | 3.5 | 9.1 |
| Beauregard | 30.2 | 15.6 | 9.7 | ... | 2.2 | 2.7 | 90.0 | 35.5 | 37.5 | ... | 9.1 | 7.8 |
| Bienville | 23.7 | 6.4 | 12.6 | ... | 1.6 | 3.0 | 96.3 | 27.7 | 55.9 | ... | 4.8 | 8.0 |
| Bossier | 8.9 | 2.2 | 5.2 | ... | 0.1 | 1.4 | 41.6 | 12.7 | 25.2 | ... | 0.5 | 3.2 |
| Caddo | 12.0 | ... | 8.1 | ... | 1.4 | 2.6 | 45.8 | ... | 35.3 | ... | 2.5 | 8.0 |
| Calcasieu | 6.2 | 1.2 | 1.7 | 0.1 | 1.6 | 1.5 | 24.1 | 5.7 | 6.2 | 0.5 | 6.0 | 5.6 |
| Caldwell | 12.5 | 2.6 | 5.1 | ... | 1.1 | 3.7 | 48.2 | 9.4 | 29.3 | ... | 1.8 | 7.8 |
| Catahoula | 7.2 | 0.6 | 1.9 | 0.1 | 1.2 | 3.4 | 30.9 | 2.5 | 13.4 | 0.3 | 2.8 | 11.9 |
| Claiborne | 27.6 | 2.0 | 19.1 | ... | 2.5 | 4.1 | 103.3 | 4.8 | 81.1 | ... | 6.1 | 11.4 |
| Concordia | 9.9 | ... | ... | ... | 4.0 | 5.9 | 33.8 | ... | ... | ... | 13.4 | 20.4 |
| De Soto | 19.7 | 2.5 | 13.4 | ... | 1.5 | 2.3 | 88.8 | 11.2 | 65.3 | ... | 5.8 | 6.5 |
| East Baton Rouge | 3.4 | ... | 0.4 | ... | 0.9 | 2.0 | 11.1 | ... | 2.2 | ... | 3.0 | 5.9 |
| East Carroll[4] | 7.1 | 0.6 | 0.2 | ... | 2.2 | 4.1 | 29.2 | 3.8 | 0.8 | ... | 8.6 | 16.0 |
| East Feliciana | 3.0 | ... | 2.1 | ... | 0.3 | 0.5 | 13.1 | ... | 9.7 | ... | 1.3 | 2.1 |
| Evangeline | 5.5 | 0.8 | 3.6 | ... | 0.6 | 0.5 | 16.5 | 0.4 | 13.7 | ... | 1.6 | 0.8 |
| Grant | 18.7 | 3.9 | 10.8 | ... | 0.7 | 3.2 | 88.6 | 14.7 | 62.0 | ... | 1.6 | 10.2 |
| Iberia | 1.1 | ... | ... | ... | 0.2 | 0.8 | 3.5 | ... | ... | ... | 0.5 | 3.0 |
| Iberville[5] | 2.2 | ... | ... | ... | 1.7 | 0.5 | 6.1 | ... | ... | ... | 4.2 | 1.9 |
| Jackson | 27.0 | 7.9 | 13.8 | ... | 1.4 | 3.9 | 131.7 | 42.9 | 73.1 | ... | 6.0 | 9.6 |
| Jefferson Davis | 3.4 | ... | 2.5 | ... | 0.4 | 0.5 | 17.3 | ... | 13.4 | ... | 1.9 | 2.1 |
| Lafourche | 1.7 | ... | ... | 0.3 | 0.5 | 0.8 | 7.5 | ... | ... | 1.4 | 2.2 | 3.9 |
| La Salle | 18.3 | 3.9 | 11.4 | ... | 0.9 | 2.0 | 84.1 | 15.9 | 58.3 | ... | 3.8 | 6.1 |
| Lincoln | 13.0 | 2.1 | 8.6 | ... | 0.8 | 1.4 | 43.2 | 6.2 | 32.4 | ... | 0.6 | 4.0 |
| Livingston | 8.1 | ... | 7.2 | ... | 0.3 | 0.6 | 39.6 | ... | 37.6 | ... | 0.6 | 1.3 |
| Madison | 7.8 | ... | ... | ... | 4.6 | 3.2 | 27.1 | ... | ... | ... | 14.7 | 12.5 |
| Morehouse | 10.1 | 4.0 | 3.7 | ... | 0.6 | 1.8 | 28.6 | 0.9 | 21.9 | ... | 0.8 | 5.0 |
| Natchitoches | 28.4 | 5.0 | 15.2 | ... | 3.4 | 4.8 | 114.5 | 19.7 | 74.8 | ... | 5.6 | 14.5 |
| Ouachita | 9.7 | 1.4 | 3.5 | 0.8 | 0.7 | 3.3 | 43.4 | 9.0 | 20.1 | 2.3 | 2.5 | 9.4 |
| Pointe Coupee | 4.3 | ... | ... | ... | 2.1 | 2.2 | 14.7 | ... | ... | ... | 6.9 | 7.8 |
| Rapides | 24.6 | 8.0 | 10.6 | ... | 1.4 | 4.6 | 94.7 | 30.1 | 48.9 | ... | 1.6 | 14.1 |
| Red River | 7.6 | 2.1 | 3.2 | ... | 0.1 | 2.1 | 32.9 | 7.9 | 17.9 | ... | ... | 7.2 |
| Sabine | 38.0 | 10.1 | 17.9 | ... | 3.1 | 7.0 | 156.1 | 42.6 | 90.3 | ... | 6.2 | 17.0 |
| St. Charles | 0.7 | ... | ... | 0.4 | ... | 0.2 | 1.9 | ... | ... | 1.9 | ... | ... |
| St. Helena | 11.2 | 5.1 | 5.4 | ... | ... | 0.7 | 48.3 | 23.6 | 23.0 | ... | ... | 1.8 |
| St. James | 0.3 | ... | ... | ... | 0.2 | 0.1 | 0.4 | ... | ... | ... | 0.4 | ... |
| St. John Baptist | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| St. Landry | 6.8 | ... | 1.4 | 0.5 | 2.0 | 3.0 | 24.0 | ... | 7.0 | 1.7 | 4.9 | 10.3 |
| St. Martin | 1.2 | ... | ... | 0.5 | ... | 0.7 | 5.1 | ... | ... | 2.2 | ... | 2.9 |
| St. Mary | 0.1 | ... | ... | ... | ... | 0.1 | ... | ... | ... | ... | ... | ... |
| St. Tammany | 14.0 | 2.6 | 8.0 | 0.1 | 2.0 | 1.2 | 55.4 | 12.6 | 32.0 | 0.7 | 5.5 | 4.7 |
| Tangipahoa | 11.3 | 0.8 | 9.0 | ... | 0.5 | 1.1 | 47.6 | 1.7 | 40.7 | ... | 0.9 | 4.3 |
| Tensas | 4.9 | ... | ... | ... | 2.9 | 2.0 | 19.3 | ... | ... | ... | 10.7 | 8.5 |
| Terrebonne | 0.5 | ... | ... | 0.1 | 0.4 | 0.1 | 1.4 | ... | ... | 0.5 | 0.6 | 0.3 |
| Union | 19.7 | 2.8 | 12.3 | 0.2 | 1.1 | 3.2 | 68.2 | 6.4 | 47.6 | 1.4 | 4.2 | 8.5 |
| Vernon | 35.3 | 12.8 | 17.7 | 0.2 | 1.9 | 2.7 | 126.9 | 38.9 | 74.6 | 0.8 | 4.8 | 7.9 |
| Washington | 13.7 | 5.3 | 7.5 | ... | 0.1 | 0.7 | 54.9 | 21.7 | 30.7 | ... | 0.5 | 2.0 |
| Webster | 17.7 | 4.7 | 9.0 | ... | 0.8 | 3.2 | 74.4 | 20.5 | 39.4 | ... | 2.5 | 11.9 |
| West Feliciana | 2.0 | ... | 0.5 | ... | 0.9 | 0.6 | 7.7 | ... | 2.8 | ... | 3.2 | 1.7 |
| Winn | 45.4 | 8.1 | 26.1 | ... | 3.3 | 7.9 | 219.8 | 33.2 | 142.4 | ... | 16.9 | 27.3 |
| All parishes | 610.0 | 131.8 | 295.1 | 4.7 | 64.1 | 114.3 | 2454.1 | 482.0 | 1402.9 | 19.2 | 192.5 | 357.5 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Lafayette and Vermilion included in Acadia.

[4] Franklin, Richland, and West Carroll included in East Carroll.

[5] West Baton Rouge included in Iberville.

Table 20--Average net annual growth and average annual removals of growing stock on timberland, Louisiana, 1984

| Species | Growth | Removals |
|---|---|---|
| | Million cubic feet | |
| Yellow pines | 520.4 | 426.9 |
| Other softwoods | 25.0 | 4.7 |
| Total softwoods | 545.3 | 431.6 |
| Select white-red oaks | 33.1 | 17.3 |
| Other white-red oaks | 105.7 | 65.8 |
| Hickory | 17.4 | 16.1 |
| Hard maple | 0.1 | ... |
| Sweetgum | 58.7 | 36.4 |
| Ash-walnut-black cherry | 11.9 | 7.9 |
| Yellow-poplar | 2.8 | 0.3 |
| Other hardwoods | 64.3 | 34.6 |
| Total hardwoods | 294.0 | 178.4 |
| All species | 839.4 | 610.0 |

Table 21--Average net annual growth and average annual removals of sawtimber on timberland, Louisiana, 1984

| Species | Growth | Removals |
|---|---|---|
| | Million board feet | |
| Yellow pines | 2548.8 | 1884.9 |
| Other softwoods | 128.9 | 19.2 |
| Total softwoods | 2677.7 | 1904.1 |
| Select white-red oaks | 118.5 | 57.0 |
| Other white-red oaks | 416.3 | 199.4 |
| Hickory | 70.2 | 53.8 |
| Hard maple | 0.3 | ... |
| Sweetgum | 176.1 | 108.0 |
| Ash-walnut-black cherry | 41.7 | 22.8 |
| Yellow-poplar | 11.6 | 1.1 |
| Other hardwoods | 255.3 | 107.8 |
| Total hardwoods | 1090.0 | 550.0 |
| All species | 3767.7 | 2454.1 |

Table 22--Average annual mortality of growing stock and sawtimber on timberland by species, Louisiana, 1984

| Species | Growing stock | Sawtimber |
|---|---|---|
| | - Million cubic feet - | - Million board feet - |
| Yellow pines | 53.7 | 169.1 |
| Other softwoods | 0.9 | 2.9 |
| Total softwoods | 54.6 | 171.9 |
| Select white-red oaks | 3.0 | 7.8 |
| Other white-red oaks | 16.9 | 48.1 |
| Hickory | 4.8 | 16.7 |
| Sweetgum | 12.0 | 33.6 |
| Ash-walnut-black cherry | 3.9 | 8.7 |
| Other hardwoods | 33.5 | 93.3 |
| Total hardwoods | 74.1 | 208.3 |
| All species | 128.8 | 380.2 |

Table 23--Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, Louisiana, 1984

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million cubic feet | | | | | | | | | | | |
| National forest | 40.9 | 6.1 | 23.7 | -0.2 | 3.2 | 8.1 | 30.2 | 8.1 | 17.5 | ... | 1.1 | 3.5 |
| Other public | 30.8 | 0.1 | 8.8 | 1.7 | 7.3 | 12.8 | 15.7 | 1.3 | 7.8 | 0.8 | 1.5 | 4.3 |
| Forest industry | 238.2 | 59.1 | 115.4 | 1.3 | 19.7 | 42.7 | 229.6 | 68.3 | 105.1 | 0.3 | 16.3 | 39.7 |
| Forest industry-leased | 41.5 | 15.0 | 17.2 | 0.3 | 4.9 | 4.0 | 38.7 | 16.0 | 13.8 | ... | 5.7 | 3.2 |
| Other private | 488.0 | 48.9 | 226.0 | 21.9 | 79.8 | 111.4 | 295.8 | 38.1 | 151.0 | 3.6 | 39.5 | 63.6 |
| All ownerships | 839.4 | 129.2 | 391.2 | 25.0 | 115.0 | 179.0 | 610.0 | 131.8 | 295.1 | 4.7 | 64.1 | 114.3 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 24--Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, Louisiana, 1984

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | Million board feet | | | | | | | | | | | |
| ational forest | 207.5 | 31.2 | 138.4 | 1.1 | 9.6 | 27.1 | 128.6 | 31.7 | 82.7 | ... | 3.7 | 10.4 |
| ther public | 151.0 | 0.7 | 55.5 | 5.3 | 33.4 | 56.2 | 67.6 | 5.6 | 40.2 | 2.3 | 4.4 | 15.1 |
| orest industry | 1033.0 | 193.3 | 595.8 | 6.5 | 71.1 | 166.2 | 984.7 | 273.2 | 530.1 | 1.4 | 59.5 | 120.5 |
| orest industry-leased | 172.6 | 47.9 | 88.8 | 0.3 | 19.6 | 16.1 | 140.9 | 58.9 | 55.4 | ... | 16.4 | 10.2 |
| ther private | 2203.6 | 185.9 | 1211.3 | 115.7 | 276.2 | 414.5 | 1132.4 | 112.6 | 694.5 | 15.5 | 108.5 | 201.3 |
| l ownerships | 3767.7 | 459.0 | 2089.8 | 128.9 | 409.8 | 680.2 | 2454.1 | 482.0 | 1402.9 | 19.2 | 192.5 | 357.5 |

Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

Hardwood species with an average specific volume greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 25--Volume of sawtimber on timberland by species and tree grade, Louisiana, 1984

| Species | All grades | Grade 1 | Grade 2 | Grade 3 | Grade 4 |
|---|---|---|---|---|---|
| | Million board feet | | | | |
| Yellow pines | 40225.9 | 5645.3 | 7042.3 | 27538.3 | ... |
| Cypress | 5201.8 | 1430.9 | 1468.5 | 2302.4 | ... |
| Redcedar | 17.7 | 17.7 | ... | ... | ... |
| Total softwoods | 45445.4 | 7093.9 | 8510.7 | 29840.7 | ... |
| Select white-red oaks | 2129.3 | 342.9 | 516.4 | 837.5 | 432.6 |
| Other white-red oaks | 7875.5 | 618.7 | 1508.7 | 3119.6 | 2628.5 |
| Hickory | 1841.8 | 230.6 | 485.8 | 806.7 | 318.7 |
| Hard maple | 13.9 | ... | 4.1 | 7.8 | 2.1 |
| Sweetgum | 4226.3 | 769.6 | 1147.2 | 1753.6 | 555.9 |
| Tupelo and blackgum | 2999.2 | 506.3 | 915.8 | 1489.0 | 88.1 |
| Ash-walnut-black cherry | 1251.4 | 198.9 | 431.2 | 587.1 | 34.1 |
| Yellow-poplar | 202.0 | 50.4 | 22.4 | 46.6 | 82.5 |
| Other hardwoods | 4750.4 | 639.5 | 971.2 | 2150.7 | 989.0 |
| Total hardwoods | 25289.8 | 3356.9 | 6002.7 | 10798.6 | 5131.5 |
| All species | 70735.2 | 10450.9 | 14513.5 | 40639.3 | 5131.5 |

## SUPPLEMENTAL TABLES - 26 - 36

Table 26--Area of timberland by stand age, forest type group, and type of regeneration, Louisiana, 1984

| Stand Age Class | Pine | | Oak-pine | | Other hardwood types | |
|---|---|---|---|---|---|---|
| | Artifical | Natural | Artifical | Natural | Artifical | Natural |
| | Thousand acres | | | | | |
| 1-10 | 476.5 | 232.6 | 148.1 | 85.7 | 183.3 | 233.2 |
| 11-20 | 257.3 | 127.4 | 5.5 | 39.7 | 48.3 | 49.7 |
| 21-30 | 451.2 | 345.5 | 38.4 | 74.7 | 6.1 | 99.7 |
| 31-40 | 114.8 | 454.6 | 5.2 | 110.7 | 5.5 | 174.7 |
| 41-50 | 5.5 | 11.1 | ... | ... | ... | 5.7 |
| >50 | ... | 129.6 | ... | 23.2 | ... | 60.2 |
| MIXED | 165.6 | 2194.8 | 24.0 | 1358.2 | 29.7 | 6064.4 |
| TOTAL | 1470.8 | 3495.6 | 221.1 | 1692.2 | 273.0 | 6687.6 |

Table 27--Volume of softwood growing stock on timberland by forest type, Louisiana, 1984

| Parish | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Million cubic feet | | | | | | | | |
| Acadia[1] | 24.0 | ... | ... | ... | 13.9 | ... | ... | 10.1 | ... |
| Allen | 264.4 | 62.5 | ... | 9.7 | 104.7 | 60.4 | 10.9 | 16.2 | ... |
| Ascension | 42.9 | ... | ... | ... | 23.2 | ... | 1.1 | 18.6 | ... |
| Assumption | 128.5 | ... | ... | ... | ... | ... | ... | 128.5 | ... |
| Avoyelles | 64.7 | ... | ... | ... | 24.0 | ... | ... | 40.7 | ... |
| Beauregard | 525.1 | 287.3 | 65.7 | 35.3 | 89.1 | 31.0 | 4.9 | 11.7 | ... |
| Bienville | 461.4 | 8.9 | ... | 152.0 | 200.9 | 80.7 | 11.8 | 7.2 | ... |
| Bossier | 391.3 | ... | ... | 9.2 | 276.5 | 72.3 | 25.7 | 7.6 | ... |
| Caddo | 189.9 | ... | ... | ... | 117.7 | 59.7 | 8.7 | 3.8 | ... |
| Calcasieu | 149.8 | 30.1 | 27.8 | ... | 73.9 | 3.3 | 3.3 | 11.4 | ... |
| Caldwell | 146.6 | ... | ... | 20.8 | 81.7 | 28.1 | 16.0 | ... | ... |
| Catahoula | 71.3 | ... | ... | ... | 23.7 | 40.8 | 2.8 | 3.9 | ... |
| Claiborne | 394.0 | ... | ... | 90.9 | 223.2 | 51.0 | 27.8 | 1.1 | ... |
| Concordia | 8.4 | ... | ... | ... | ... | ... | ... | 8.4 | ... |
| De Soto | 373.4 | ... | ... | 37.3 | 239.8 | 69.2 | 14.1 | 13.0 | ... |
| East Baton Rouge | 21.4 | ... | ... | ... | 5.3 | ... | ... | 16.1 | ... |
| East Carroll[2] | 21.2 | ... | ... | ... | ... | 14.3 | ... | 6.8 | ... |
| East Feliciana | 204.2 | ... | ... | 30.3 | 122.3 | 44.4 | 2.0 | 5.2 | ... |
| Evangeline | 194.6 | 15.8 | 11.1 | ... | 129.9 | 31.1 | 5.2 | 1.5 | ... |
| Grant | 397.4 | ... | 49.6 | 17.8 | 225.7 | 79.1 | 15.4 | 9.9 | ... |
| Iberia | 94.5 | ... | ... | ... | ... | ... | ... | 89.6 | 4.9 |
| Iberville[3] | 89.6 | ... | ... | ... | ... | ... | ... | 79.2 | 10.4 |
| Jackson | 299.7 | 11.2 | ... | 26.5 | 189.5 | 40.5 | 24.7 | 7.4 | ... |
| Jefferson Davis | 55.0 | ... | 3.3 | ... | 22.9 | 19.4 | 0.6 | 8.9 | ... |
| Lafourche | 139.2 | ... | ... | ... | ... | ... | ... | 139.2 | ... |
| La Salle | 246.1 | ... | 24.2 | 75.9 | 104.1 | 23.9 | 7.8 | 10.1 | ... |
| Lincoln | 227.4 | ... | ... | 32.4 | 170.2 | 13.2 | 11.6 | ... | ... |
| Livingston | 292.8 | ... | ... | 23.0 | 170.1 | 43.2 | 9.7 | 46.8 | ... |
| Madison | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Morehouse | 131.1 | 10.4 | ... | 11.8 | 94.4 | 10.9 | 0.7 | 2.8 | ... |
| Natchitoches | 473.4 | 32.7 | 25.4 | ... | 331.1 | 62.8 | 16.6 | 5.0 | ... |
| Ouachita | 166.2 | ... | ... | 12.4 | 98.7 | 19.9 | 11.4 | 23.7 | ... |
| Pointe Coupee | 11.8 | ... | ... | ... | ... | ... | ... | 11.8 | ... |
| Rapides | 475.1 | 14.2 | 65.0 | 23.0 | 256.6 | 85.6 | 7.7 | 23.0 | ... |
| Red River | 72.5 | ... | ... | 8.6 | 31.6 | 24.6 | 7.7 | ... | ... |
| Sabine | 452.2 | 12.4 | ... | 60.6 | 268.7 | 76.6 | 27.6 | 6.2 | ... |
| St. Charles | 29.2 | ... | ... | ... | ... | ... | ... | 29.2 | ... |
| St. Helena | 191.2 | ... | ... | 4.3 | 153.0 | 26.3 | 7.6 | ... | ... |
| St. James | 93.8 | ... | ... | ... | ... | ... | ... | 93.8 | ... |
| St. John Baptist | 106.3 | ... | ... | ... | ... | ... | ... | 106.3 | ... |
| St. Landry | 56.2 | ... | ... | ... | 3.1 | 4.1 | ... | 48.2 | 0.8 |
| St. Martin | 141.8 | ... | ... | ... | ... | ... | ... | 126.7 | 15.0 |
| St. Mary | 76.1 | ... | ... | ... | ... | ... | ... | 76.1 | ... |
| St. Tammany | 272.4 | 24.8 | 100.7 | ... | 97.0 | 24.6 | 7.7 | 17.6 | ... |
| Tangipahoa | 211.1 | 18.1 | 19.1 | 20.6 | 82.0 | 26.2 | 8.8 | 36.3 | ... |
| Tensas | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Terrebonne | 136.9 | ... | ... | ... | ... | ... | ... | 136.9 | ... |
| Union | 419.0 | ... | ... | 114.2 | 228.1 | 49.6 | 9.6 | 17.5 | ... |
| Vernon | 581.6 | 90.3 | 53.0 | 71.4 | 260.1 | 84.6 | 17.1 | 5.2 | ... |
| Washington | 159.8 | ... | 10.8 | 17.1 | 86.0 | 22.6 | 3.5 | 19.7 | ... |
| Webster | 241.9 | ... | ... | 2.1 | 155.5 | 58.6 | 18.8 | 6.8 | ... |
| West Feliciana | 70.4 | ... | ... | ... | 32.3 | 4.0 | 2.2 | 31.9 | ... |
| Winn | 463.4 | ... | 10.0 | 91.1 | 244.6 | 63.3 | 31.1 | 23.2 | ... |
| All parishes | 10552.0 | 618.6 | 465.6 | 998.5 | 5055.0 | 1450.0 | 382.1 | 1551.0 | 31.1 |

[1] Lafayette and Vermilion included in Acadia.

[2] Franklin, Richland, and West Carroll included in East Carroll.

[3] West Baton Rouge included in Iberville.

Table 28--Volume of hardwood growing stock on timberland by forest type, Louisiana, 1984

| Parish | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Million cubic feet | | | | | | | | |
| Acadia[1] | 106.7 | ... | ... | ... | 2.3 | ... | 4.8 | 99.2 | 0.3 |
| Allen | 123.0 | ... | ... | 0.4 | 4.9 | 26.8 | 13.2 | 77.8 | ... |
| Ascension | 107.7 | ... | ... | ... | 1.1 | ... | 1.1 | 105.5 | ... |
| Assumption | 125.8 | ... | ... | ... | ... | ... | ... | 122.4 | 3.4 |
| Avoyelles | 165.0 | ... | ... | ... | 5.9 | ... | 6.1 | 153.0 | ... |
| Beauregard | 176.4 | ... | 1.0 | 3.2 | 9.3 | 17.6 | 18.3 | 127.0 | ... |
| Bienville | 222.7 | ... | ... | 2.6 | 26.2 | 64.3 | 68.3 | 61.4 | ... |
| Bossier | 241.4 | ... | ... | ... | 54.0 | 52.4 | 61.2 | 70.6 | 3.1 |
| Caddo | 168.3 | ... | ... | ... | 22.4 | 31.6 | 36.8 | 69.5 | 8.1 |
| Calcasieu | 38.0 | 1.0 | 1.6 | ... | 4.0 | ... | 10.7 | 20.8 | ... |
| Caldwell | 168.3 | ... | ... | ... | 9.6 | 16.0 | 82.4 | 60.3 | ... |
| Catahoula | 102.1 | ... | ... | ... | 8.6 | 26.9 | 17.7 | 48.9 | ... |
| Claiborne | 227.7 | ... | ... | 13.7 | 41.5 | 30.0 | 62.6 | 80.0 | ... |
| Concordia | 246.7 | ... | ... | ... | ... | ... | ... | 178.7 | 67.9 |
| De Soto | 153.6 | ... | ... | 1.1 | 16.6 | 48.7 | 48.5 | 38.7 | ... |
| East Baton Rouge | 109.1 | ... | ... | ... | 1.9 | ... | 24.0 | 83.3 | ... |
| East Carroll[2] | 198.6 | ... | ... | ... | ... | 8.1 | ... | 106.8 | 83.7 |
| East Feliciana | 90.6 | ... | ... | 0.4 | 20.4 | 29.9 | 21.9 | 18.0 | ... |
| Evangeline | 114.4 | ... | 0.2 | ... | 10.7 | 26.5 | 26.5 | 50.5 | ... |
| Grant | 183.0 | ... | 3.1 | 0.9 | 39.8 | 46.9 | 31.5 | 60.7 | ... |
| Iberia | 95.7 | ... | ... | ... | ... | ... | ... | 77.8 | 18.0 |
| Iberville[3] | 342.9 | ... | ... | ... | ... | ... | ... | 286.3 | 56.5 |
| Jackson | 169.3 | 1.1 | ... | 4.0 | 16.3 | 29.1 | 63.1 | 55.6 | ... |
| Jefferson Davis | 38.6 | ... | ... | ... | 0.5 | 24.9 | ... | 13.3 | ... |
| Lafourche | 176.3 | ... | ... | ... | ... | ... | ... | 176.3 | ... |
| La Salle | 161.6 | ... | 0.5 | 1.1 | 15.5 | 22.0 | 26.1 | 96.5 | ... |
| Lincoln | 125.1 | ... | ... | 0.3 | 32.8 | 13.2 | 35.8 | 43.0 | ... |
| Livingston | 204.0 | ... | ... | 2.1 | 12.6 | 17.7 | 22.1 | 149.5 | ... |
| Madison | 140.8 | ... | ... | ... | ... | ... | ... | 135.0 | 5.9 |
| Morehouse | 138.2 | 0.3 | ... | ... | 12.9 | 3.1 | 7.4 | 114.5 | ... |
| Natchitoches | 238.8 | 1.1 | ... | ... | 37.0 | 33.9 | 91.1 | 56.5 | 19.2 |
| Ouachita | 145.3 | ... | ... | ... | 17.2 | 7.6 | 47.7 | 72.9 | ... |
| Pointe Coupee | 236.4 | ... | ... | ... | ... | ... | ... | 229.3 | 7.0 |
| Rapides | 237.2 | ... | 3.9 | ... | 31.6 | 43.3 | 34.3 | 116.3 | 7.7 |
| Red River | 80.7 | ... | ... | 2.6 | 2.0 | 19.9 | 25.2 | 16.0 | 15.0 |
| Sabine | 167.4 | 2.1 | ... | 6.6 | 26.9 | 34.1 | 62.5 | 35.2 | ... |
| St. Charles | 53.9 | ... | ... | ... | ... | ... | ... | 42.6 | 11.3 |
| St. Helena | 55.6 | ... | ... | 1.1 | 20.6 | 10.2 | 23.7 | ... | ... |
| St. James | 112.8 | ... | ... | ... | ... | ... | ... | 112.8 | ... |
| St. John Baptist | 91.9 | ... | ... | ... | ... | ... | ... | 91.9 | ... |
| St. Landry | 276.6 | ... | ... | ... | 1.0 | ... | ... | 253.9 | 21.7 |
| St. Martin | 304.8 | ... | ... | ... | ... | ... | 7.4 | 184.5 | 112.8 |
| St. Mary | 114.4 | ... | ... | ... | ... | ... | ... | 104.6 | 9.9 |
| St. Tammany | 164.7 | ... | 0.9 | ... | 12.4 | 18.1 | 21.1 | 112.2 | ... |
| Tangipahoa | 106.6 | ... | ... | ... | 13.2 | 7.9 | 21.8 | 63.6 | ... |
| Tensas | 193.8 | ... | ... | ... | ... | ... | ... | 127.6 | 66.2 |
| Terrebonne | 96.8 | ... | ... | ... | ... | ... | ... | 96.8 | ... |
| Union | 247.6 | ... | ... | 5.0 | 41.5 | 39.6 | 30.6 | 130.8 | ... |
| Vernon | 177.5 | ... | 0.7 | ... | 21.4 | 44.6 | 50.6 | 60.1 | ... |
| Washington | 114.9 | ... | 1.7 | ... | 8.7 | 15.7 | 23.8 | 64.9 | ... |
| Webster | 173.8 | ... | ... | ... | 27.8 | 47.2 | 80.6 | 18.2 | ... |
| West Feliciana | 136.0 | ... | ... | ... | 12.0 | 1.6 | 49.4 | 68.1 | 4.9 |
| Winn | 250.9 | ... | ... | 1.8 | 24.4 | 52.3 | 106.5 | 65.9 | ... |
| All parishes | 8440.0 | 5.7 | 13.7 | 46.8 | 667.7 | 911.6 | 1366.4 | 4905.5 | 522.7 |

[1] Lafayette and Vermilion included in Acadia.

[2] Franklin, Richland, and West Carroll included in East Carroll.

[3] West Baton Rouge included in Iberville.

Table 29--Volume of softwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, Louisiana, 1984

| Parish | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Million cubic feet | | | | | | | | |
| Acadia[1] | 19.9 | ... | ... | ... | 11.6 | ... | ... | 8.3 | ... |
| Allen | 205.3 | 33.8 | ... | 7.9 | 88.8 | 49.4 | 10.3 | 15.1 | ... |
| Ascension | 34.5 | ... | ... | ... | 19.0 | ... | 1.0 | 14.5 | ... |
| Assumption | 93.8 | ... | ... | ... | ... | ... | ... | 93.8 | ... |
| Avoyelles | 50.5 | ... | ... | ... | 19.4 | ... | ... | 31.1 | ... |
| Beauregard | 306.2 | 137.0 | 40.0 | 24.9 | 64.4 | 25.2 | 4.3 | 10.3 | ... |
| Bienville | 334.4 | 7.9 | ... | 82.1 | 161.4 | 65.7 | 11.0 | 6.4 | ... |
| Bossier | 314.1 | ... | ... | 4.8 | 220.3 | 61.3 | 21.1 | 6.5 | ... |
| Caddo | 138.1 | ... | ... | ... | 81.7 | 46.9 | 6.9 | 2.6 | ... |
| Calcasieu | 100.6 | 5.1 | 20.6 | ... | 59.9 | 3.0 | 2.4 | 9.7 | ... |
| Caldwell | 126.4 | ... | ... | 16.1 | 71.7 | 24.2 | 14.5 | ... | ... |
| Catahoula | 48.0 | ... | ... | ... | 8.7 | 35.9 | ... | 3.4 | ... |
| Claiborne | 287.0 | ... | ... | 65.7 | 157.0 | 40.7 | 22.6 | 1.0 | ... |
| Concordia | 8.3 | ... | ... | ... | ... | ... | ... | 8.3 | ... |
| De Soto | 283.9 | ... | ... | 25.8 | 180.5 | 53.8 | 11.4 | 12.3 | ... |
| East Baton Rouge | 14.8 | ... | ... | ... | 1.4 | ... | ... | 13.4 | ... |
| East Carroll[2] | 16.0 | ... | ... | ... | ... | 10.9 | ... | 5.0 | ... |
| East Feliciana | 175.9 | ... | ... | 25.4 | 108.1 | 36.0 | 1.4 | 5.0 | ... |
| Evangeline | 153.1 | 7.1 | 4.5 | ... | 111.7 | 25.7 | 4.0 | 0.1 | ... |
| Grant | 333.4 | ... | 36.6 | 10.3 | 195.1 | 69.6 | 12.7 | 9.1 | ... |
| Iberia | 60.3 | ... | ... | ... | ... | ... | ... | 57.3 | 3.0 |
| Iberville[3] | 71.0 | ... | ... | ... | ... | ... | ... | 62.3 | 8.8 |
| Jackson | 237.0 | 8.8 | ... | 14.7 | 152.7 | 31.9 | 21.9 | 7.0 | ... |
| Jefferson Davis | 47.2 | ... | 2.3 | ... | 19.4 | 16.7 | ... | 8.8 | ... |
| Lafourche | 118.2 | ... | ... | ... | ... | ... | ... | 118.2 | ... |
| La Salle | 169.6 | ... | 20.4 | 51.3 | 68.5 | 16.2 | 5.2 | 8.1 | ... |
| Lincoln | 168.8 | ... | ... | 23.0 | 127.7 | 9.8 | 8.3 | ... | ... |
| Livingston | 213.9 | ... | ... | 12.8 | 125.6 | 30.0 | 8.7 | 36.8 | ... |
| Madison | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Morehouse | 104.6 | 6.4 | ... | 7.5 | 78.4 | 9.6 | ... | 2.7 | ... |
| Natchitoches | 369.4 | 25.3 | 14.3 | ... | 263.1 | 48.9 | 13.9 | 3.9 | ... |
| Ouachita | 123.1 | ... | ... | 1.8 | 76.5 | 17.2 | 11.0 | 16.6 | ... |
| Pointe Coupee | 10.3 | ... | ... | ... | ... | ... | ... | 10.3 | ... |
| Rapides | 350.6 | 7.1 | 34.8 | 6.4 | 202.9 | 77.1 | 6.9 | 15.5 | ... |
| Red River | 53.8 | ... | ... | 6.2 | 20.6 | 20.5 | 6.4 | ... | ... |
| Sabine | 352.3 | 9.7 | ... | 37.9 | 218.0 | 57.2 | 24.1 | 5.4 | ... |
| St. Charles | 25.1 | ... | ... | ... | ... | ... | ... | 25.1 | ... |
| St. Helena | 155.8 | ... | ... | 1.4 | 124.6 | 24.1 | 5.7 | ... | ... |
| St. James | 78.2 | ... | ... | ... | ... | ... | ... | 78.2 | ... |
| St. John Baptist | 92.3 | ... | ... | ... | ... | ... | ... | 92.3 | ... |
| St. Landry | 42.2 | ... | ... | ... | 2.8 | 1.8 | ... | 37.6 | ... |
| St. Martin | 103.9 | ... | ... | ... | ... | ... | ... | 96.1 | 7.8 |
| St. Mary | 55.6 | ... | ... | ... | ... | ... | ... | 55.6 | ... |
| St. Tammany | 191.4 | 7.0 | 64.4 | ... | 82.9 | 18.4 | 6.0 | 12.7 | ... |
| Tangipahoa | 147.5 | 11.4 | 13.5 | 12.0 | 69.9 | 19.4 | 7.3 | 14.0 | ... |
| Tensas | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Terrebonne | 86.1 | ... | ... | ... | ... | ... | ... | 86.1 | ... |
| Union | 321.3 | ... | ... | 90.1 | 171.6 | 37.2 | 6.6 | 15.9 | ... |
| Vernon | 394.0 | 45.5 | 40.2 | 38.5 | 186.4 | 66.7 | 14.2 | 2.6 | ... |
| Washington | 120.4 | ... | 10.3 | 5.6 | 68.4 | 17.4 | 2.2 | 16.5 | ... |
| Webster | 193.6 | ... | ... | 1.0 | 121.7 | 49.9 | 17.1 | 3.8 | ... |
| West Feliciana | 57.2 | ... | ... | ... | 24.2 | 3.7 | 2.1 | 27.3 | ... |
| Winn | 363.2 | ... | 9.4 | 50.1 | 209.7 | 48.5 | 28.3 | 17.3 | ... |
| All parishes | 7922.1 | 312.0 | 311.2 | 623.3 | 3976.3 | 1170.3 | 319.6 | 1189.8 | 19.6 |

[1] Lafayette and Vermilion included in Acadia.

[2] Franklin, Richland, and West Carroll included in East Carroll.

[3] West Baton Rouge included in Iberville.

Table 30--Volume of hardwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, Louisiana, 1984

| Parish | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash-cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | Million cubic feet | | | | | | | | |
| Acadia[1] | 67.8 | ... | ... | ... | 1.8 | ... | 3.5 | 62.6 | ... |
| Allen | 76.6 | ... | ... | 0.4 | 3.2 | 12.1 | 7.8 | 53.0 | ... |
| Ascension | 63.3 | ... | ... | ... | ... | ... | 0.9 | 62.3 | ... |
| Assumption | 62.9 | ... | ... | ... | ... | ... | ... | 62.9 | ... |
| Avoyelles | 112.6 | ... | ... | ... | 4.4 | ... | 4.2 | 104.0 | ... |
| Beauregard | 116.1 | ... | ... | 0.3 | 6.2 | 10.0 | 8.4 | 91.2 | ... |
| Bienville | 128.8 | ... | ... | 0.9 | 10.5 | 37.6 | 34.3 | 45.5 | ... |
| Bossier | 131.4 | ... | ... | ... | 22.0 | 27.3 | 32.4 | 49.1 | 0.7 |
| Caddo | 94.1 | ... | ... | ... | 8.2 | 20.4 | 18.7 | 40.1 | 6.7 |
| Calcasieu | 21.0 | ... | ... | ... | 2.2 | ... | 6.7 | 12.0 | ... |
| Caldwell | 113.3 | ... | ... | ... | 4.5 | 6.2 | 56.3 | 46.4 | ... |
| Catahoula | 63.7 | ... | ... | ... | 1.3 | 14.7 | 12.1 | 35.6 | ... |
| Claiborne | 103.8 | ... | ... | 8.0 | 10.5 | 10.4 | 26.9 | 48.0 | ... |
| Concordia | 177.2 | ... | ... | ... | ... | ... | ... | 126.7 | 50.5 |
| De Soto | 84.1 | ... | ... | 1.0 | 5.6 | 27.5 | 23.4 | 26.6 | ... |
| East Baton Rouge | 68.9 | ... | ... | ... | 0.9 | ... | 14.1 | 53.9 | ... |
| East Carroll[2] | 129.0 | ... | ... | ... | ... | 2.3 | ... | 71.3 | 55.4 |
| East Feliciana | 58.0 | ... | ... | ... | 9.9 | 21.3 | 14.4 | 12.4 | ... |
| Evangeline | 72.3 | ... | ... | ... | 5.8 | 16.2 | 16.9 | 33.4 | ... |
| Grant | 107.7 | ... | 1.0 | ... | 18.9 | 23.0 | 23.5 | 41.2 | ... |
| Iberia | 55.1 | ... | ... | ... | ... | ... | ... | 42.3 | 12.8 |
| Iberville[3] | 245.0 | ... | ... | ... | ... | ... | ... | 206.1 | 38.9 |
| Jackson | 94.5 | ... | ... | 1.7 | 6.3 | 17.9 | 24.9 | 43.7 | ... |
| Jefferson Davis | 24.4 | ... | ... | ... | ... | 16.8 | ... | 7.6 | ... |
| Lafourche | 114.2 | ... | ... | ... | ... | ... | ... | 114.2 | ... |
| La Salle | 109.0 | ... | 0.4 | ... | 5.9 | 10.8 | 17.3 | 74.7 | ... |
| Lincoln | 72.9 | ... | ... | ... | 19.1 | 7.1 | 14.4 | 32.2 | ... |
| Livingston | 106.2 | ... | ... | ... | 9.5 | 8.6 | 12.2 | 75.8 | ... |
| Madison | 95.1 | ... | ... | ... | ... | ... | ... | 93.1 | 2.0 |
| Morehouse | 81.9 | ... | ... | ... | 4.7 | 1.3 | 4.0 | 71.8 | ... |
| Natchitoches | 100.3 | ... | ... | ... | 11.9 | 16.3 | 38.4 | 24.8 | 9.0 |
| Ouachita | 69.4 | ... | ... | ... | 3.6 | 3.9 | 22.5 | 39.4 | ... |
| Pointe Coupee | 174.2 | ... | ... | ... | ... | ... | ... | 168.7 | 5.5 |
| Rapides | 144.1 | ... | 1.7 | ... | 14.2 | 25.1 | 17.8 | 81.2 | 4.1 |
| Red River | 49.4 | ... | ... | 2.0 | ... | 9.6 | 14.6 | 12.1 | 11.2 |
| Sabine | 88.7 | 0.9 | ... | 3.8 | 8.0 | 17.0 | 34.5 | 24.5 | ... |
| St. Charles | 28.7 | ... | ... | ... | ... | ... | ... | 22.8 | 6.0 |
| St. Helena | 28.5 | ... | ... | ... | 9.7 | 6.1 | 12.8 | ... | ... |
| St. James | 62.3 | ... | ... | ... | ... | ... | ... | 62.3 | ... |
| St. John Baptist | 58.9 | ... | ... | ... | ... | ... | ... | 58.9 | ... |
| St. Landry | 201.7 | ... | ... | ... | 0.9 | ... | ... | 183.6 | 17.3 |
| St. Martin | 173.4 | ... | ... | ... | ... | ... | 1.4 | 103.9 | 68.1 |
| St. Mary | 55.8 | ... | ... | ... | ... | ... | ... | 50.7 | 5.1 |
| St. Tammany | 97.9 | ... | ... | ... | 6.5 | 13.5 | 13.7 | 64.3 | ... |
| Tangipahoa | 59.1 | ... | ... | ... | 8.0 | 0.4 | 15.9 | 34.7 | ... |
| Tensas | 125.1 | ... | ... | ... | ... | ... | ... | 80.1 | 45.0 |
| Terrebonne | 65.1 | ... | ... | ... | ... | ... | ... | 65.1 | ... |
| Union | 138.5 | ... | ... | 2.1 | 14.9 | 10.2 | 15.3 | 96.0 | ... |
| Vernon | 88.9 | ... | ... | ... | 10.3 | 17.9 | 26.6 | 34.1 | ... |
| Washington | 61.8 | ... | 0.7 | ... | 5.8 | 4.9 | 7.8 | 42.6 | ... |
| Webster | 75.8 | ... | ... | ... | 9.8 | 19.6 | 35.7 | 10.7 | ... |
| West Feliciana | 90.4 | ... | ... | ... | 4.5 | 0.9 | 31.3 | 50.2 | 3.6 |
| Winn | 148.2 | ... | ... | 0.7 | 7.8 | 30.7 | 67.0 | 42.0 | ... |
| All parishes | 5037.4 | 0.9 | 3.9 | 21.0 | 277.4 | 467.6 | 732.6 | 3192.2 | 341.9 |

[1] Lafayette and Vermilion included in Acadia.

[2] Franklin, Richland, and West Carroll included in East Carroll.

[3] West Baton Rouge included in Iberville.

Table 31--Volume of timber on timberland by parish, class of timber and species group, Louisiana, 1984

| Parish | All classes | Growing stock | | Rough | | Rotten | |
|---|---|---|---|---|---|---|---|
| | | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| | Million cubic feet | | | | | | |
| Acadia[1] | 153.0 | 24.0 | 106.7 | 1.2 | 18.3 | ... | 2.8 |
| Allen | 451.4 | 264.4 | 123.0 | 12.5 | 36.7 | 0.7 | 14.3 |
| Ascension | 179.1 | 42.9 | 107.7 | 5.5 | 19.2 | ... | 3.8 |
| Assumption | 329.8 | 128.5 | 125.8 | 10.0 | 47.1 | 11.4 | 6.8 |
| Avoyelles | 286.0 | 64.7 | 165.0 | 3.4 | 35.9 | 2.5 | 14.6 |
| Beauregard | 780.3 | 525.1 | 176.4 | 4.6 | 49.0 | 1.7 | 23.6 |
| Bienville | 759.9 | 461.4 | 222.7 | 18.4 | 35.1 | ... | 22.3 |
| Bossier | 698.8 | 391.3 | 241.4 | 2.2 | 50.4 | 1.4 | 12.0 |
| Caddo | 412.6 | 189.9 | 168.3 | 1.1 | 43.4 | ... | 10.0 |
| Calcasieu | 221.5 | 149.8 | 38.0 | 4.6 | 21.3 | ... | 7.8 |
| Caldwell | 358.6 | 146.6 | 168.3 | 3.9 | 34.6 | 0.3 | 4.9 |
| Catahoula | 200.3 | 71.3 | 102.1 | 0.2 | 13.9 | ... | 12.9 |
| Claiborne | 673.9 | 394.0 | 227.7 | 4.4 | 29.5 | ... | 18.3 |
| Concordia | 314.5 | 8.4 | 246.7 | 0.9 | 41.6 | 3.5 | 13.3 |
| De Soto | 605.2 | 373.4 | 153.6 | 10.8 | 48.4 | 2.6 | 16.4 |
| East Baton Rouge | 177.7 | 21.4 | 109.1 | 5.1 | 32.1 | 0.8 | 9.3 |
| East Carroll[2] | 263.2 | 21.2 | 198.6 | 1.6 | 34.7 | ... | 7.0 |
| East Feliciana | 353.2 | 204.2 | 90.6 | 14.8 | 37.0 | ... | 6.5 |
| Evangeline | 338.4 | 194.6 | 114.4 | 6.7 | 14.8 | ... | 8.0 |
| Grant | 627.6 | 397.4 | 183.0 | 6.7 | 27.9 | 0.8 | 11.9 |
| Iberia | 234.5 | 94.5 | 95.7 | 9.0 | 31.9 | 0.2 | 3.3 |
| Iberville[3] | 606.2 | 89.6 | 342.9 | 1.4 | 144.5 | 3.6 | 24.2 |
| Jackson | 509.4 | 299.7 | 169.3 | 2.8 | 28.1 | ... | 9.4 |
| Jefferson Davis | 107.0 | 55.0 | 38.6 | 0.5 | 10.9 | ... | 2.0 |
| Lafourche | 411.0 | 139.2 | 176.3 | 22.2 | 56.8 | 6.2 | 10.1 |
| La Salle | 443.1 | 246.1 | 161.6 | 2.7 | 28.6 | ... | 4.1 |
| Lincoln | 377.2 | 227.4 | 125.1 | 4.9 | 17.3 | 0.8 | 1.8 |
| Livingston | 592.5 | 292.8 | 204.0 | 9.6 | 57.9 | 6.3 | 21.9 |
| Madison | 180.6 | ... | 140.8 | ... | 19.5 | ... | 20.2 |
| Morehouse | 307.4 | 131.1 | 138.2 | 2.1 | 19.3 | 1.8 | 15.0 |
| Natchitoches | 778.2 | 473.4 | 238.8 | 4.6 | 50.2 | ... | 11.3 |
| Ouachita | 358.1 | 166.2 | 145.3 | 3.9 | 28.5 | ... | 14.1 |
| Pointe Coupee | 303.8 | 11.8 | 236.4 | ... | 45.5 | 1.1 | 9.0 |
| Rapides | 779.5 | 475.1 | 237.2 | 7.3 | 48.7 | ... | 11.2 |
| Red River | 185.1 | 72.5 | 80.7 | 3.2 | 19.9 | ... | 8.8 |
| Sabine | 679.9 | 452.2 | 167.4 | 7.9 | 38.0 | ... | 14.5 |
| St. Charles | 100.2 | 29.2 | 53.9 | 3.9 | 12.3 | 0.5 | 0.5 |
| St. Helena | 273.8 | 191.2 | 55.6 | 3.1 | 15.8 | 1.9 | 6.1 |
| St. James | 236.7 | 93.8 | 112.8 | 4.4 | 16.0 | 0.9 | 8.9 |
| St. John Baptist | 251.9 | 106.3 | 91.9 | 5.0 | 44.9 | 3.2 | 0.7 |
| St. Landry | 413.6 | 56.2 | 276.6 | 3.5 | 69.0 | ... | 8.4 |
| St. Martin | 603.8 | 141.8 | 304.8 | 8.5 | 127.5 | 2.2 | 19.0 |
| St. Mary | 236.9 | 76.1 | 114.4 | 5.2 | 34.7 | 0.7 | 5.8 |
| St. Tammany | 522.2 | 272.4 | 164.7 | 11.8 | 59.0 | 0.4 | 14.0 |
| Tangipahoa | 384.9 | 211.1 | 106.6 | 9.0 | 42.6 | 0.7 | 14.9 |
| Tensas | 226.7 | ... | 193.8 | ... | 22.0 | ... | 11.0 |
| Terrebonne | 277.9 | 136.9 | 96.8 | 4.1 | 35.0 | ... | 5.1 |
| Union | 723.6 | 419.0 | 247.6 | 7.6 | 31.9 | 0.9 | 16.6 |
| Vernon | 873.6 | 581.6 | 177.5 | 18.6 | 68.0 | 0.1 | 27.9 |
| Washington | 333.4 | 159.8 | 114.9 | 15.2 | 37.4 | 0.2 | 6.0 |
| Webster | 449.7 | 241.9 | 173.8 | 7.9 | 21.8 | 0.4 | 3.9 |
| West Feliciana | 278.0 | 70.4 | 136.0 | 8.3 | 58.7 | 2.9 | 1.8 |
| Winn | 797.7 | 463.4 | 250.9 | 7.6 | 48.2 | 7.8 | 19.8 |
| All parishes | 22023.4 | 10552.0 | 8440.0 | 324.2 | 2061.2 | 68.6 | 577.4 |

[1] Lafayette and Vermilion included in Acadia.

[2] Franklin, Richland, and West Carroll included in East Carroll.

[3] West Baton Rouge included in Iberville.

Table 32--Number of live trees on timberland by detailed species and diameter class, Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 large |
| | Thousand trees | | | | | | | | | | | | |
| Longleaf pine | 67521 | 20815 | 13290 | 8706 | 7585 | 6135 | 4254 | 2776 | 2128 | 1089 | 474 | 260 | |
| Slash pine | 180980 | 48019 | 36939 | 35843 | 31094 | 18807 | 5909 | 3095 | 867 | 308 | 57 | 43 | . |
| Shortleaf pine | 210441 | 77913 | 38825 | 30588 | 23045 | 17489 | 10770 | 6589 | 2996 | 1528 | 329 | 369 | . |
| Loblolly pine | 1551547 | 678803 | 367902 | 189168 | 105536 | 78186 | 48615 | 34530 | 22398 | 13026 | 6774 | 6269 | 3 |
| Spruce pine | 8667 | 1134 | 2734 | 704 | 619 | 940 | 674 | 646 | 409 | 413 | 216 | 144 | |
| Other s. pines | 48 | ... | ... | ... | ... | ... | 48 | ... | ... | ... | ... | ... | . |
| Redcedar | 9504 | 7907 | 541 | 397 | 482 | 157 | ... | ... | ... | ... | ... | 11 | |
| Cypress | 157850 | 39382 | 27850 | 20565 | 17411 | 15362 | 11836 | 8525 | 6772 | 4172 | 2677 | 2927 | 3 |
| Total softwoods | 2186558 | 873973 | 488081 | 285971 | 185771 | 137075 | 82106 | 56161 | 35571 | 20535 | 10528 | 10022 | 7 |
| Select white oaks | 154351 | 90779 | 26971 | 13726 | 6833 | 5260 | 4279 | 2028 | 1601 | 1043 | 688 | 956 | 1 |
| Select red oaks | 71299 | 38106 | 13244 | 7630 | 2828 | 2643 | 1788 | 1615 | 982 | 858 | 557 | 891 | 1 |
| Other white oaks | 193259 | 103857 | 37347 | 16283 | 11629 | 7212 | 5515 | 3804 | 2644 | 1917 | 978 | 1745 | 3 |
| Other red oaks | 651603 | 411628 | 86492 | 44150 | 34065 | 24431 | 17348 | 9777 | 7372 | 5539 | 2979 | 6384 | 14 |
| Sweet pecan | 12742 | 4315 | 2644 | 2586 | 1037 | 415 | 479 | 398 | 222 | 257 | 144 | 196 | |
| Water hickory | 93507 | 52695 | 15121 | 9873 | 3638 | 4370 | 2293 | 2404 | 1210 | 738 | 388 | 653 | 1 |
| Other hickories | 134696 | 91509 | 16705 | 10698 | 4895 | 3556 | 3336 | 1467 | 1097 | 687 | 315 | 380 | |
| Persimmon | 64857 | 49951 | 9241 | 4605 | 678 | 322 | ... | 41 | ... | ... | 19 | ... | . |
| Hard maple | 14674 | 12175 | 1688 | 523 | ... | 68 | 108 | 77 | ... | ... | ... | 34 | . |
| Soft maple | 639450 | 479877 | 97558 | 31565 | 15517 | 7182 | 3396 | 2087 | 1066 | 554 | 271 | 327 | |
| Boxelder | 45382 | 26500 | 9162 | 3741 | 1705 | 2274 | 1131 | 311 | 340 | 160 | 58 | ... | . |
| Beech | 25134 | 11646 | 3094 | 1770 | 586 | 1619 | 1123 | 1211 | 1192 | 592 | 720 | 1349 | 2 |
| Sweetgum | 1064409 | 672790 | 200906 | 82325 | 44415 | 25287 | 15301 | 10687 | 5703 | 3006 | 2165 | 1714 | 1 |
| Blackgum | 340262 | 241776 | 51141 | 19799 | 12617 | 6042 | 2809 | 2326 | 1841 | 1070 | 401 | 417 | |
| Other gums/tupelos | 174699 | 34992 | 37151 | 22834 | 23600 | 20180 | 16831 | 9683 | 5181 | 1959 | 1066 | 1106 | 1 |
| White ash | 30686 | 22386 | 3297 | 2308 | 927 | 314 | 492 | 498 | 220 | 70 | 85 | 82 | |
| Other ashes | 259911 | 163316 | 43896 | 17885 | 13131 | 8079 | 4930 | 2773 | 2333 | 1513 | 743 | 1200 | 1 |
| Sycamore | 10931 | 2046 | 1688 | 2072 | 2092 | 940 | 1089 | 225 | 277 | 157 | 163 | 160 | |
| Cottonwood | 11480 | 1650 | 1642 | 1264 | 2722 | 1408 | 841 | 583 | 488 | 336 | 143 | 311 | |
| Basswood | 4786 | 3102 | 540 | 856 | ... | 78 | 52 | 43 | 59 | ... | 21 | 17 | |
| Yellow-poplar | 6070 | 2305 | 1063 | 415 | 689 | 169 | 507 | 284 | 166 | 204 | 140 | 98 | |
| Magnolia | 11656 | 7424 | 2266 | ... | 482 | 261 | 330 | 327 | 209 | 103 | 116 | 84 | |
| Sweetbay | 60144 | 40931 | 8638 | 3960 | 3111 | 1607 | 783 | 581 | 268 | 143 | 44 | 79 | . |
| Willow | 83363 | 45973 | 6558 | 8668 | 5608 | 4086 | 3864 | 2280 | 1855 | 1672 | 758 | 1811 | 2 |
| Black walnut | 317 | ... | ... | 304 | ... | ... | ... | ... | ... | ... | ... | 14 | . |
| Black cherry | 42151 | 33414 | 4535 | 1872 | 985 | 792 | 232 | 114 | 127 | 25 | 18 | 35 | . |
| American elm | 77136 | 42706 | 13204 | 9193 | 4126 | 2579 | 1969 | 1161 | 951 | 664 | 237 | 315 | |
| Other elms | 269191 | 222378 | 28155 | 6735 | 5506 | 2211 | 1681 | 1304 | 481 | 336 | 150 | 223 | |
| River birch | 2462 | 508 | 1202 | 234 | ... | 275 | 118 | 41 | 32 | 52 | ... | ... | . |
| Hackberry | 146429 | 84110 | 25134 | 12858 | 7875 | 5474 | 3808 | 2578 | 2070 | 1348 | 433 | 673 | |
| Black locust | 1551 | ... | 574 | 753 | 224 | ... | ... | ... | ... | ... | ... | ... | . |
| Other locusts | 15015 | 5674 | 2720 | 2393 | 1402 | 993 | 538 | 623 | 298 | 95 | 120 | 128 | |
| Sassafras | 31461 | 23264 | 5415 | 1577 | 594 | 465 | 57 | 40 | 31 | ... | 18 | ... | . |
| Dogwood | 190972 | 140295 | 42006 | 7457 | 1006 | 146 | 62 | ... | ... | ... | ... | ... | . |
| Holly | 58192 | 43256 | 8472 | 4160 | 1241 | 551 | 357 | 120 | 35 | ... | ... | ... | . |
| Other commercial | 37633 | 28419 | 5411 | 2285 | 918 | 230 | 261 | 75 | 33 | ... | ... | ... | . |
| Total hardwoods | 5031861 | 3235754 | 814882 | 359358 | 216683 | 141517 | 97707 | 61566 | 40385 | 25106 | 13937 | 21378 | 35 |
| Noncommercial | 858569 | 676858 | 108404 | 46051 | 17768 | 5630 | 2536 | 745 | 128 | 136 | 103 | 154 | |
| All species | 8076989 | 4786585 | 1411366 | 691381 | 420223 | 284222 | 182349 | 118472 | 76084 | 45777 | 24568 | 31555 | 44 |

Table 33--Number of growing stock-stock trees on timberland by detailed species and diameter class, Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Thousand trees | | | | | | | | | | |
| Longleaf pine | 32370 | 8072 | 7422 | 6050 | 4136 | 2776 | 2095 | 1089 | 474 | 249 | 8 |
| Slash pine | 89063 | 30680 | 29849 | 18436 | 5909 | 2915 | 867 | 308 | 57 | 43 | ... |
| Shortleaf pine | 87620 | 26286 | 21871 | 17209 | 10606 | 6426 | 2996 | 1528 | 329 | 369 | ... |
| Loblolly pine | 474280 | 170795 | 99750 | 75359 | 47243 | 33347 | 21953 | 12742 | 6626 | 6132 | 335 |
| Spruce pine | 4482 | 704 | 399 | 866 | 674 | 646 | 409 | 390 | 216 | 144 | 35 |
| Other s. pines | 48 | ... | ... | ... | 48 | ... | ... | ... | ... | ... | ... |
| Redcedar | 826 | 397 | 260 | 157 | ... | ... | ... | ... | ... | 11 | ... |
| Cypress | 80795 | 18489 | 16265 | 12011 | 11018 | 7959 | 6415 | 3790 | 2364 | 2409 | 74 |
| Total softwoods | 769483 | 255422 | 175815 | 130088 | 79634 | 54068 | 34736 | 19847 | 10067 | 9355 | 451 |
| Select white oaks | 30972 | 11569 | 6226 | 4620 | 3501 | 1714 | 1299 | 791 | 531 | 651 | 68 |
| Select red oaks | 17476 | 6363 | 2828 | 2482 | 1604 | 1486 | 804 | 719 | 428 | 681 | 80 |
| Other white oaks | 38427 | 11527 | 8739 | 5652 | 4267 | 2958 | 1917 | 1330 | 676 | 1175 | 186 |
| Other red oaks | 123105 | 33699 | 28612 | 20570 | 14880 | 8203 | 5946 | 4247 | 2221 | 4126 | 601 |
| Sweet pecan | 4040 | 1734 | 615 | 415 | 283 | 337 | 124 | 218 | 123 | 159 | 32 |
| Water hickory | 15692 | 4467 | 2119 | 3310 | 1626 | 1850 | 946 | 511 | 249 | 515 | 100 |
| Other hickories | 19906 | 6606 | 4364 | 3085 | 2764 | 1073 | 937 | 575 | 237 | 250 | 15 |
| Persimmon | 2437 | 1682 | 433 | 322 | ... | ... | ... | ... | ... | ... | ... |
| Hard maple | 150 | ... | ... | ... | 56 | 77 | ... | ... | ... | 17 | ... |
| Soft maple | 28591 | 14037 | 8800 | 2807 | 1267 | 757 | 495 | 186 | 123 | 109 | 10 |
| Boxelder | 4578 | 1751 | 849 | 1152 | 523 | 80 | 144 | 80 | ... | ... | ... |
| Beech | 5468 | 1021 | 217 | 922 | 686 | 644 | 705 | 334 | 357 | 561 | 20 |
| Sweetgum | 150943 | 62585 | 36641 | 21435 | 12051 | 8382 | 4515 | 2443 | 1730 | 1150 | 10 |
| Blackgum | 30689 | 11854 | 8098 | 4554 | 1933 | 1753 | 1437 | 634 | 281 | 146 | ... |
| Other gums/tupelos | 73216 | 12932 | 17717 | 16566 | 11922 | 7399 | 3831 | 1416 | 801 | 613 | 18 |
| White ash | 3229 | 1222 | 556 | 314 | 432 | 369 | 220 | 23 | 63 | 30 | ... |
| Other ashes | 31480 | 9329 | 7631 | 5443 | 3273 | 1900 | 1743 | 930 | 541 | 667 | 23 |
| Sycamore | 6345 | 2072 | 1588 | 867 | 894 | 225 | 277 | 157 | 163 | 88 | 14 |
| Cottonwood | 7304 | 1060 | 2331 | 1322 | 841 | 539 | 458 | 310 | 122 | 265 | 57 |
| Basswood | 556 | 407 | ... | 78 | ... | 43 | 28 | ... | ... | ... | ... |
| Yellow-poplar | 2212 | 207 | 689 | 169 | 333 | 284 | 137 | 204 | 91 | 76 | 22 |
| Magnolia | 1214 | ... | 482 | 261 | 105 | 185 | ... | 77 | 62 | 43 | ... |
| Sweetbay | 6115 | 1961 | 2298 | 762 | 459 | 416 | 101 | 118 | ... | ... | ... |
| Willow | 18820 | 4972 | 3703 | 2607 | 2288 | 1567 | 1171 | 950 | 462 | 1003 | 99 |
| Black cherry | 2368 | 854 | 540 | 583 | 170 | 79 | 100 | 25 | 18 | ... | ... |
| American elm | 13168 | 4502 | 3407 | 1471 | 1548 | 864 | 559 | 453 | 198 | 165 | ... |
| Other elms | 14288 | 4816 | 4698 | 1815 | 1384 | 779 | 318 | 239 | 86 | 143 | 10 |
| River birch | 359 | ... | ... | 275 | ... | ... | 32 | 52 | ... | ... | ... |
| Hackberry | 22357 | 7111 | 5296 | 3623 | 2187 | 1657 | 1094 | 933 | 198 | 258 | ... |
| Black locust | 868 | 753 | 115 | ... | ... | ... | ... | ... | ... | ... | ... |
| Other locusts | 3379 | 1070 | 570 | 602 | 381 | 350 | 192 | 45 | 77 | 75 | 18 |
| Sassafras | 1288 | 1010 | 159 | 72 | ... | ... | 31 | ... | 18 | ... | ... |
| Dogwood | 1997 | 1848 | 149 | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 3797 | 3061 | 429 | 93 | 58 | 120 | 35 | ... | ... | ... | ... |
| Other commercial | 1344 | 895 | 178 | 166 | 72 | ... | 33 | ... | ... | ... | ... |
| Total hardwoods | 688177 | 228975 | 161077 | 108414 | 71788 | 46091 | 29629 | 17999 | 9856 | 12965 | 1383 |
| All species | 1457660 | 484396 | 336892 | 238502 | 151422 | 100159 | 64365 | 37846 | 19923 | 22321 | 1834 |

Table 34--Volume of growing stock on timberland by species and diameter class, Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | | | |
| Longleaf pine | 438.2 | 16.5 | 48.2 | 65.6 | 73.8 | 71.6 | 70.8 | 49.8 | 25.1 | 15.3 | 1.5 |
| Slash pine | 790.5 | 80.1 | 199.8 | 228.1 | 122.5 | 99.1 | 35.8 | 16.1 | 4.5 | 4.5 | ... |
| Shortleaf pine | 1141.3 | 66.1 | 153.4 | 220.7 | 226.9 | 200.3 | 130.7 | 85.5 | 22.7 | 35.1 | ... |
| Loblolly pine | 6587.4 | 359.1 | 588.0 | 899.0 | 941.3 | 996.6 | 896.8 | 713.6 | 487.5 | 641.8 | 63.7 |
| Spruce pine | 125.4 | 1.8 | 3.4 | 12.1 | 13.4 | 19.2 | 19.0 | 20.9 | 14.4 | 12.9 | 8.4 |
| Other s. pines | 1.4 | ... | ... | ... | 1.4 | ... | ... | ... | ... | ... | ... |
| Redcedar | 4.7 | 0.6 | 0.7 | 2.0 | ... | ... | ... | ... | ... | 1.3 | ... |
| Cypress | 1463.0 | 32.1 | 84.0 | 138.6 | 203.9 | 218.3 | 242.3 | 183.9 | 143.7 | 206.5 | 9.7 |
| Total softwoods | 10552.0 | 556.3 | 1077.5 | 1566.2 | 1583.2 | 1605.1 | 1395.4 | 1069.7 | 697.9 | 917.4 | 83.3 |
| Select white oaks | 367.5 | 24.6 | 35.5 | 48.7 | 59.1 | 44.8 | 45.3 | 30.4 | 26.9 | 43.4 | 8.8 |
| Select red oaks | 297.7 | 15.5 | 17.1 | 28.7 | 32.0 | 41.4 | 30.8 | 36.3 | 28.6 | 54.1 | 13.2 |
| Other white oaks | 476.2 | 20.6 | 45.6 | 55.2 | 61.4 | 60.4 | 50.7 | 52.4 | 30.9 | 76.8 | 22.2 |
| Other red oaks | 1869.2 | 76.6 | 169.7 | 222.7 | 262.0 | 200.2 | 197.3 | 185.7 | 119.3 | 341.0 | 94.7 |
| Sweet pecan | 77.2 | 7.5 | 3.9 | 5.1 | 5.2 | 11.0 | 5.1 | 12.0 | 6.7 | 17.2 | 3.5 |
| Water hickory | 223.6 | 10.4 | 10.4 | 29.2 | 23.5 | 40.0 | 24.2 | 20.5 | 12.3 | 35.1 | 17.9 |
| Other hickories | 261.8 | 14.8 | 25.4 | 34.7 | 53.9 | 29.2 | 33.3 | 28.6 | 14.5 | 24.7 | 2.8 |
| Persimmon | 9.5 | 4.0 | 1.6 | 3.9 | ... | ... | ... | ... | ... | ... | ... |
| Hard maple | 3.2 | ... | ... | ... | 0.5 | 1.7 | ... | ... | ... | 1.0 | ... |
| Soft maple | 182.4 | 31.7 | 50.0 | 27.6 | 20.2 | 18.0 | 12.9 | 8.5 | 5.5 | 6.8 | 1.2 |
| Boxelder | 31.7 | 3.6 | 4.5 | 8.2 | 7.3 | 1.9 | 4.1 | 2.1 | ... | ... | ... |
| Beech | 127.2 | 2.4 | 1.3 | 7.5 | 10.0 | 12.3 | 24.2 | 12.6 | 17.5 | 36.7 | 2.8 |
| Sweetgum | 1578.1 | 123.2 | 214.4 | 243.4 | 226.8 | 237.2 | 187.4 | 125.2 | 113.9 | 103.9 | 2.7 |
| Blackgum | 271.9 | 22.5 | 39.8 | 42.2 | 28.8 | 40.2 | 43.1 | 27.8 | 15.3 | 12.2 | ... |
| Other gums/tupelos | 874.7 | 23.8 | 85.3 | 163.4 | 189.8 | 164.1 | 115.4 | 54.6 | 37.9 | 39.2 | 1.4 |
| White ash | 37.7 | 2.6 | 3.5 | 3.3 | 6.9 | 9.0 | 6.4 | 1.2 | 2.5 | 2.3 | ... |
| Other ashes | 395.0 | 23.8 | 45.0 | 57.6 | 51.0 | 47.6 | 51.5 | 39.6 | 27.2 | 48.3 | 3.3 |
| Sycamore | 92.8 | 4.9 | 8.0 | 10.4 | 17.1 | 7.0 | 11.6 | 9.1 | 13.2 | 9.1 | 2.3 |
| Cottonwood | 170.1 | 3.2 | 14.0 | 16.5 | 17.9 | 19.2 | 17.7 | 16.9 | 9.8 | 37.0 | 17.9 |
| Basswood | 5.1 | 1.3 | ... | 0.8 | ... | 1.6 | 1.5 | ... | ... | ... | ... |
| Yellow-poplar | 52.6 | 0.5 | 4.8 | 2.1 | 7.8 | 8.3 | 5.2 | 9.3 | 5.1 | 5.7 | 3.7 |
| Magnolia | 21.9 | ... | 2.8 | 3.3 | 2.5 | 4.0 | ... | 2.7 | 3.9 | 2.7 | ... |
| Sweetbay | 58.8 | 5.4 | 14.6 | 9.0 | 9.4 | 11.8 | 3.5 | 5.2 | ... | ... | ... |
| Willow | 361.9 | 8.6 | 21.9 | 26.4 | 43.5 | 44.9 | 42.3 | 41.5 | 27.1 | 91.8 | 13.8 |
| Black cherry | 20.3 | 1.2 | 3.3 | 5.2 | 2.8 | 2.4 | 3.5 | 1.0 | 1.0 | ... | ... |
| American elm | 130.8 | 10.1 | 16.2 | 12.5 | 21.2 | 17.0 | 14.6 | 17.6 | 8.6 | 13.0 | ... |
| Other elms | 127.6 | 9.8 | 27.1 | 17.7 | 20.5 | 17.4 | 9.6 | 10.0 | 3.6 | 9.5 | 2.2 |
| River birch | 5.5 | ... | ... | 2.7 | ... | ... | 0.7 | 2.1 | ... | ... | ... |
| Hackberry | 236.2 | 12.9 | 26.1 | 33.1 | 33.5 | 34.9 | 33.4 | 33.2 | 10.7 | 18.4 | ... |
| Black locust | 2.7 | 2.0 | 0.7 | ... | ... | ... | ... | ... | ... | ... | ... |
| Other locusts | 41.9 | 2.7 | 2.3 | 5.2 | 6.5 | 7.7 | 4.3 | 1.3 | 3.9 | 5.2 | 2.7 |
| Sassafras | 6.6 | 1.6 | 0.8 | 1.2 | ... | ... | 1.1 | ... | 1.8 | ... | ... |
| Dogwood | 3.2 | 2.8 | 0.4 | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 12.5 | 6.3 | 1.9 | 0.6 | 0.7 | 2.4 | 0.7 | ... | ... | ... | ... |
| Other commercial | 4.9 | 1.8 | 0.5 | 1.4 | 0.4 | ... | 0.8 | ... | ... | ... | ... |
| Total hardwoods | 8440.0 | 482.7 | 898.4 | 1129.7 | 1222.5 | 1137.4 | 982.0 | 787.4 | 547.8 | 1035.2 | 216.9 |
| All species | 18992.0 | 1039.0 | 1976.0 | 2695.8 | 2805.7 | 2742.5 | 2377.4 | 1857.1 | 1245.7 | 1952.5 | 300.2 |

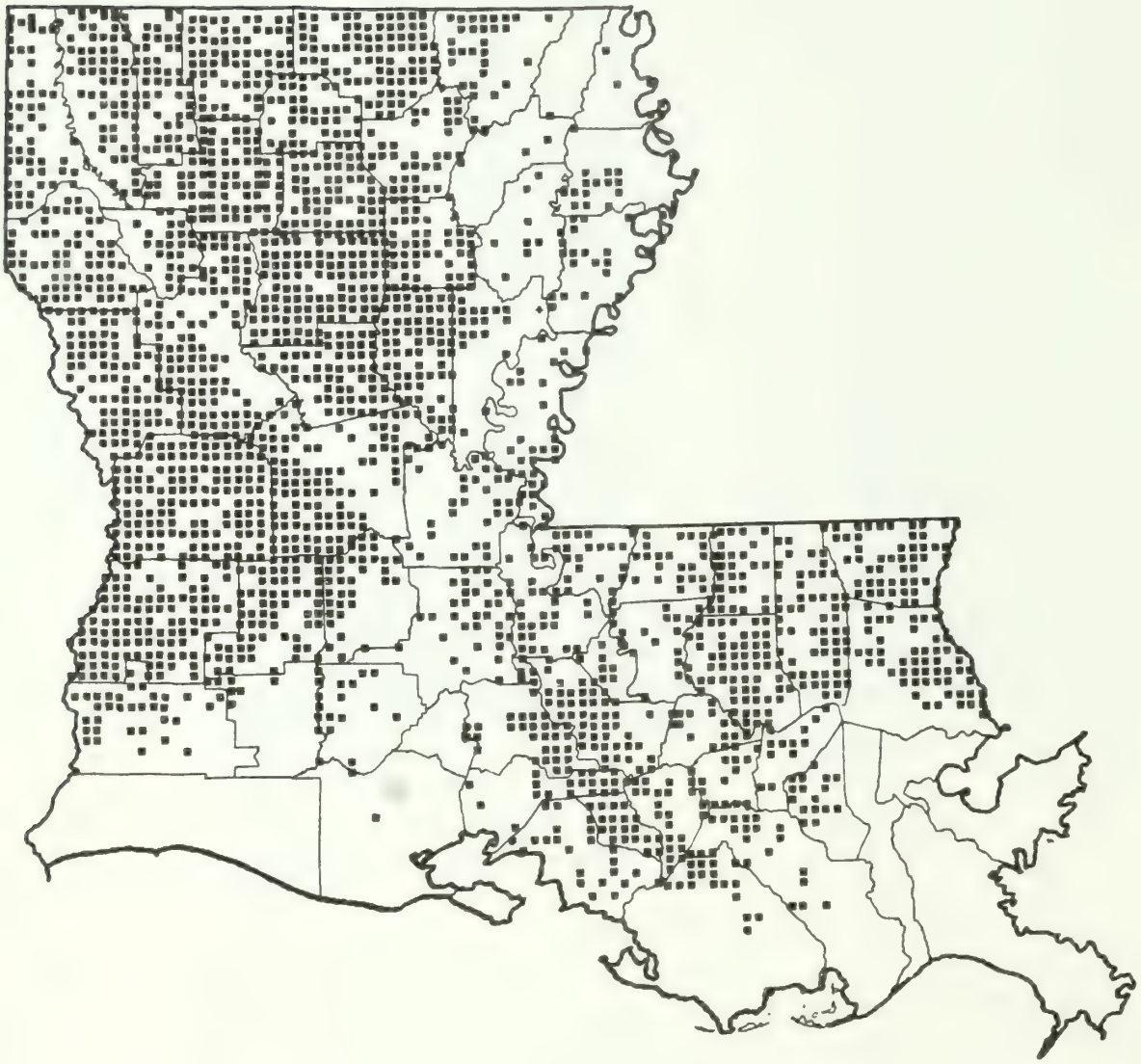
Table 35--Volume of growing stock in the saw-log portion of sawtimber trees on timberland by detailed species and diameter class, Louisiana, 1984

| Species | Diameter class (inches at breast height) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | All classes | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | Million cubic feet | | | | | | | | |
| Longleaf pine | 305.6 | 50.0 | 58.8 | 58.2 | 59.3 | 42.5 | 21.9 | 13.5 | 1.3 |
| Slash pine | 413.8 | 180.8 | 99.8 | 81.4 | 29.8 | 13.7 | 4.1 | 4.2 | ... |
| Shortleaf pine | 826.4 | 187.0 | 198.8 | 180.9 | 121.7 | 81.2 | 22.1 | 34.7 | ... |
| Loblolly pine | 5161.8 | 761.5 | 826.9 | 901.3 | 830.5 | 675.5 | 468.6 | 633.7 | 63.7 |
| Spruce pine | 110.8 | 10.7 | 12.2 | 17.4 | 17.5 | 19.2 | 13.5 | 12.3 | 8.0 |
| Other s. pines | 1.3 | ... | 1.3 | ... | ... | ... | ... | ... | ... |
| Redcedar | 3.2 | 1.8 | ... | ... | ... | ... | ... | 1.3 | ... |
| Cypress | 1099.3 | 36.4 | 161.7 | 181.7 | 210.1 | 166.1 | 133.4 | 200.0 | 9.7 |
| Total softwoods | 7922.1 | 1228.3 | 1359.5 | 1421.0 | 1269.0 | 998.2 | 663.6 | 899.8 | 82.8 |
| Select white oaks | 215.0 | ... | 46.6 | 36.0 | 37.9 | 25.8 | 23.5 | 37.3 | 7.9 |
| Select red oaks | 198.9 | ... | 25.5 | 33.8 | 25.5 | 30.7 | 24.2 | 47.0 | 12.1 |
| Other white oaks | 300.1 | ... | 49.3 | 48.9 | 42.5 | 44.5 | 26.7 | 67.8 | 20.3 |
| Other red oaks | 1179.8 | ... | 209.7 | 162.8 | 165.7 | 156.8 | 102.2 | 297.7 | 84.8 |
| Sweet pecan | 52.7 | ... | 4.1 | 8.8 | 4.3 | 10.3 | 6.0 | 15.9 | 3.3 |
| Water hickory | 148.3 | ... | 18.3 | 32.4 | 20.6 | 17.5 | 10.7 | 31.5 | 17.2 |
| Other hickories | 158.1 | ... | 43.5 | 24.3 | 28.4 | 24.5 | 12.5 | 22.3 | 2.6 |
| Hard maple | 2.7 | ... | 0.4 | 1.4 | ... | ... | ... | 0.9 | ... |
| Soft maple | 61.0 | ... | 15.7 | 15.0 | 10.7 | 7.2 | 4.9 | 6.4 | 1.2 |
| Boxelder | 12.1 | ... | 5.6 | 1.5 | 3.3 | 1.7 | ... | ... | ... |
| Beech | 100.9 | ... | 8.2 | 10.2 | 20.4 | 10.9 | 15.2 | 33.2 | 2.8 |
| Sweetgum | 867.8 | ... | 172.1 | 195.9 | 168.3 | 117.7 | 109.8 | 101.3 | 2.6 |
| Blackgum | 144.1 | ... | 21.3 | 32.8 | 37.8 | 25.8 | 14.5 | 12.0 | ... |
| Other gums/tupelos | 520.5 | ... | 152.6 | 139.2 | 102.1 | 50.8 | 35.8 | 38.6 | 1.4 |
| White ash | 23.7 | ... | 5.8 | 7.2 | 5.3 | 1.0 | 2.1 | 2.3 | ... |
| Other ashes | 224.2 | ... | 39.2 | 38.5 | 42.5 | 33.9 | 23.3 | 43.6 | 3.2 |
| Sycamore | 57.0 | ... | 12.6 | 5.8 | 9.6 | 7.7 | 11.1 | 8.0 | 2.2 |
| Cottonwood | 115.8 | ... | 13.1 | 15.1 | 14.5 | 14.1 | 8.5 | 33.1 | 17.3 |
| Basswood | 2.5 | ... | ... | 1.3 | 1.3 | ... | ... | ... | ... |
| Yellow-poplar | 38.9 | ... | 6.0 | 7.0 | 4.3 | 8.0 | 4.6 | 5.3 | 3.6 |
| Magnolia | 13.3 | ... | 2.0 | 3.2 | ... | 2.4 | 3.4 | 2.3 | ... |
| Sweetbay | 24.7 | ... | 7.6 | 9.8 | 2.9 | 4.4 | ... | ... | ... |
| Willow | 255.9 | ... | 32.9 | 34.7 | 34.4 | 34.9 | 23.4 | 82.4 | 13.0 |
| Black cherry | 9.0 | ... | 2.4 | 1.9 | 3.0 | 0.8 | 0.9 | ... | ... |
| American elm | 77.7 | ... | 16.6 | 13.9 | 12.3 | 15.2 | 7.6 | 12.1 | ... |
| Other elms | 60.5 | ... | 15.8 | 14.4 | 7.9 | 8.4 | 3.1 | 8.8 | 2.2 |
| River birch | 2.4 | ... | ... | ... | 0.6 | 1.8 | ... | ... | ... |
| Hackberry | 137.1 | ... | 25.9 | 28.2 | 27.8 | 28.7 | 9.4 | 17.0 | ... |
| Other locusts | 26.1 | ... | 5.0 | 6.0 | 3.4 | 1.1 | 3.4 | 4.7 | 2.5 |
| Sassafras | 2.5 | ... | ... | ... | 0.9 | ... | 1.6 | ... | ... |
| Holly | 3.1 | ... | 0.6 | 1.9 | 0.6 | ... | ... | ... | ... |
| Other commercial | 1.1 | ... | 0.4 | ... | 0.7 | ... | ... | ... | ... |
| Total hardwoods | 5037.4 | ... | 958.8 | 932.1 | 839.6 | 686.7 | 488.4 | 931.4 | 200.4 |
| All species | 12959.5 | 1228.3 | 2318.2 | 2353.0 | 2108.7 | 1684.9 | 1152.1 | 1831.2 | 283.1 |

Table 36--Volume of timber on timberland by species and class of timber, Louisiana, 1984

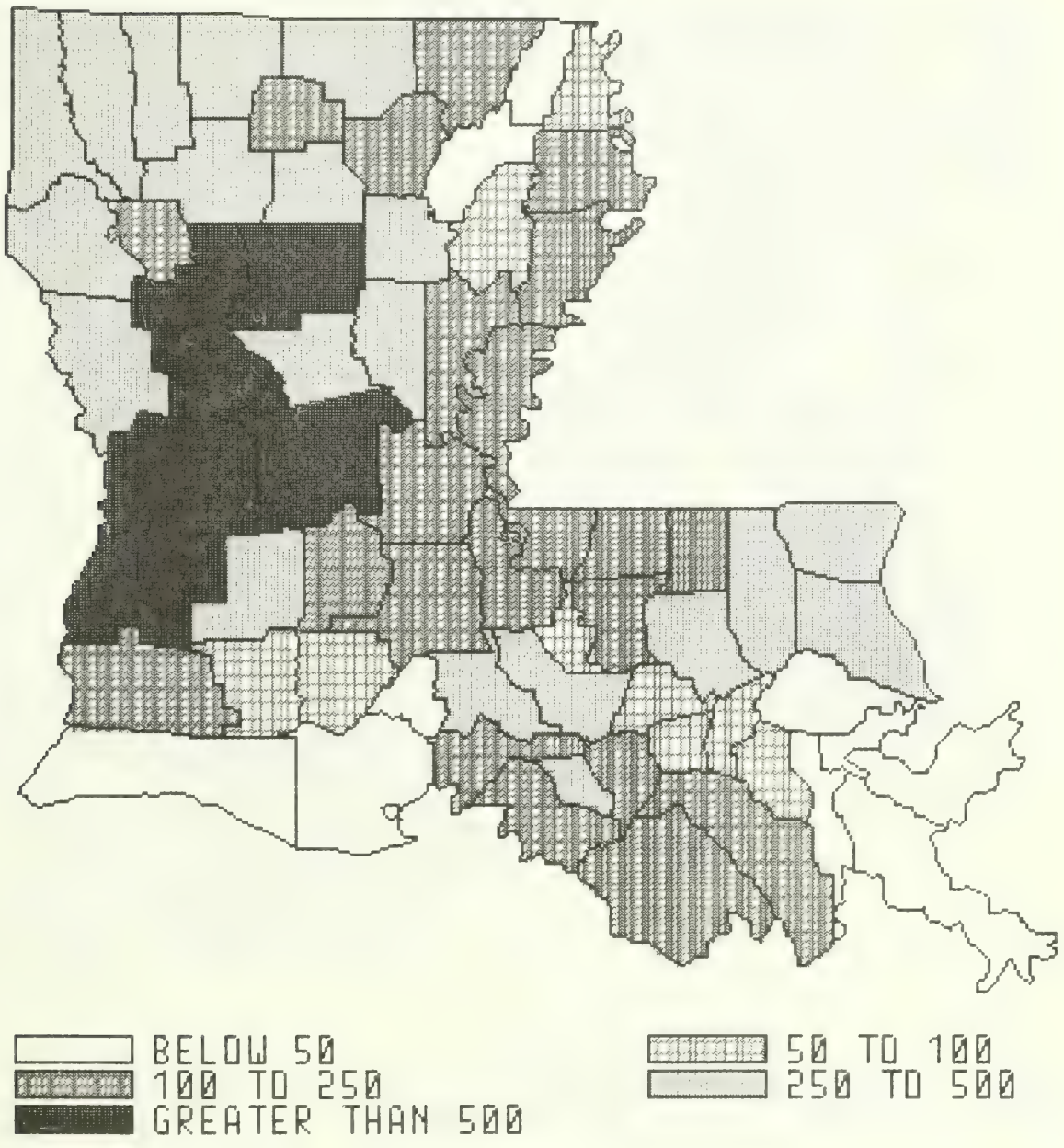
| Species | All live | Growing stock | Rough | Rotten |
|---|---|---|---|---|
| | Million cubic feet | | | |
| Longleaf pine | 444.6 | 438.2 | 6.4 | ... |
| Slash pine | 814.6 | 790.5 | 24.0 | ... |
| Shortleaf pine | 1162.1 | 1141.3 | 20.5 | 0.3 |
| Loblolly pine | 6760.7 | 6587.3 | 163.5 | 9.9 |
| Spruce pine | 128.2 | 125.4 | 2.8 | ... |
| Other s. pines | 1.4 | 1.4 | ... | ... |
| Redcedar | 5.4 | 4.7 | 0.2 | 0.4 |
| Cypress | 1627.8 | 1463.0 | 106.7 | 58.0 |
| Total softwoods | 10944.8 | 10552.0 | 324.2 | 68.6 |
| Select white oaks | 447.6 | 367.5 | 57.6 | 22.5 |
| Select red oaks | 342.6 | 297.7 | 29.8 | 15.2 |
| Other white oaks | 597.2 | 476.2 | 78.2 | 42.8 |
| Other red oaks | 2312.9 | 1869.2 | 310.4 | 133.2 |
| Sweet pecan | 93.8 | 77.2 | 15.2 | 1.4 |
| Water hickory | 287.9 | 223.6 | 59.4 | 4.9 |
| Other hickories | 307.7 | 261.8 | 33.1 | 12.9 |
| Persimmon | 15.2 | 9.5 | 5.7 | ... |
| Hard maple | 5.6 | 3.2 | 2.3 | ... |
| Soft maple | 337.7 | 182.4 | 122.2 | 33.1 |
| Boxelder | 62.6 | 31.7 | 29.0 | 1.9 |
| Beech | 227.5 | 127.2 | 48.6 | 51.7 |
| Sweetgum | 1891.4 | 1578.1 | 244.3 | 69.0 |
| Blackgum | 371.3 | 271.9 | 70.0 | 29.4 |
| Other gums/tupelos | 1118.8 | 874.7 | 208.7 | 35.4 |
| White ash | 50.9 | 37.7 | 11.1 | 2.1 |
| Other ashes | 547.8 | 395.0 | 107.6 | 45.2 |
| Sycamore | 104.0 | 92.8 | 10.1 | 1.1 |
| Cottonwood | 184.0 | 170.1 | 11.9 | 2.1 |
| Basswood | 12.3 | 5.1 | 5.9 | 1.2 |
| Yellow-poplar | 59.6 | 52.6 | 5.9 | 1.2 |
| Magnolia | 41.7 | 21.9 | 15.1 | 4.7 |
| Sweetbay | 89.2 | 58.8 | 21.9 | 8.5 |
| Willow | 536.1 | 361.9 | 147.4 | 26.8 |
| Black walnut | 0.3 | ... | 0.3 | 0.1 |
| Black cherry | 30.6 | 20.3 | 8.2 | 2.1 |
| American elm | 178.1 | 130.8 | 45.1 | 2.2 |
| Other elms | 155.2 | 127.6 | 24.2 | 3.5 |
| River birch | 8.6 | 5.5 | 3.1 | ... |
| Hackberry | 359.9 | 236.2 | 107.5 | 16.2 |
| Black locust | 3.3 | 2.7 | 0.6 | ... |
| Other locusts | 61.6 | 41.9 | 15.7 | 4.0 |
| Sassafras | 11.4 | 6.6 | 3.8 | 1.0 |
| Dogwood | 10.9 | 3.2 | 7.7 | 0.1 |
| Holly | 22.6 | 12.5 | 8.1 | 1.9 |
| Other commercial | 9.9 | 4.9 | 4.9 | 0.1 |
| Total hardwoods | 10898.0 | 8440.0 | 1880.7 | 577.4 |
| Noncommercial | 180.5 | ... | 180.5 | ... |
| All species | 22023.4 | 18992.0 | 2385.4 | 646.0 |

# FOREST PLOT LOCATIONS

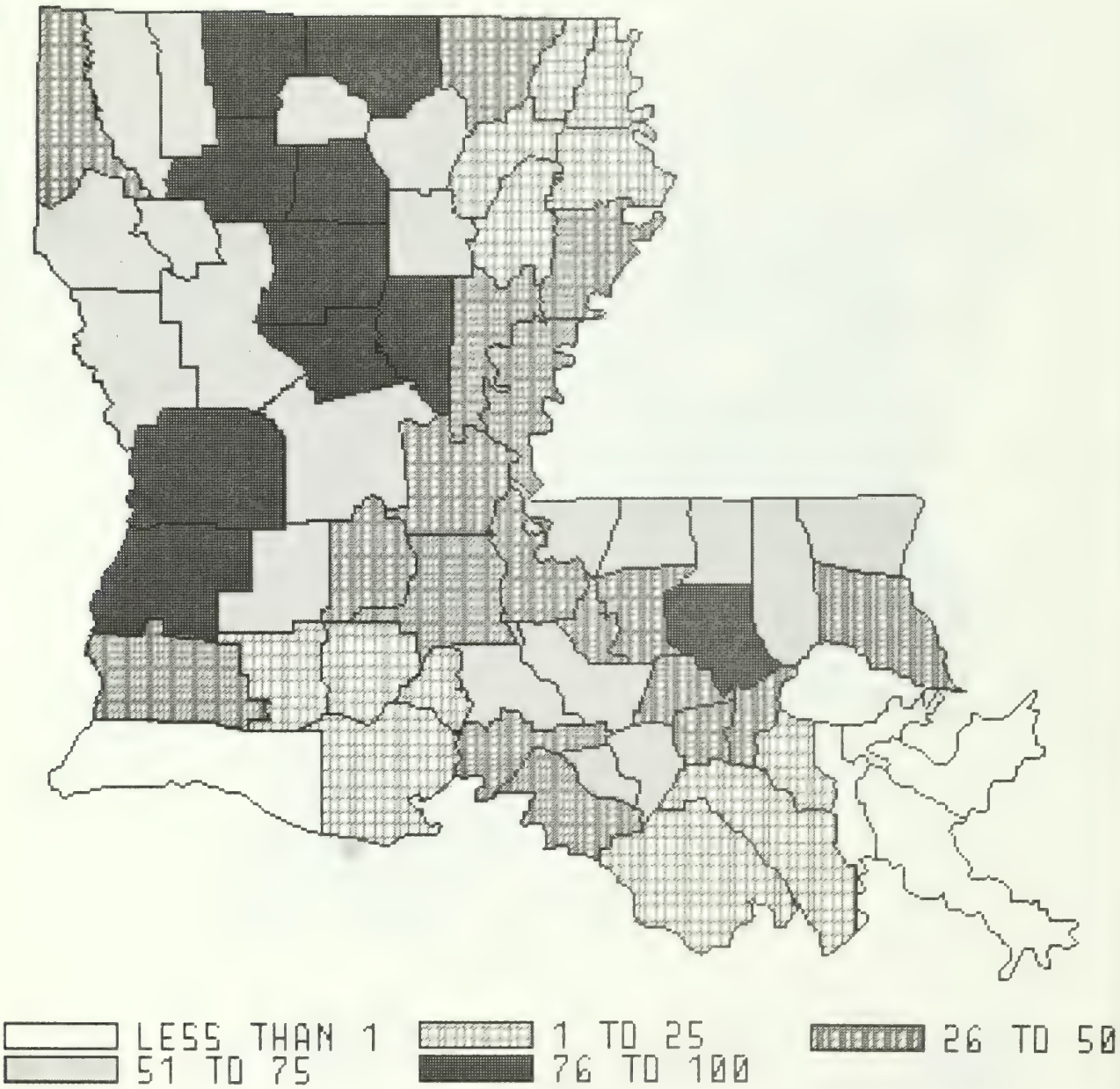


# TOTAL COMMERCIAL FOREST AREA BY PARISH

(IN THOUSAND ACRES)

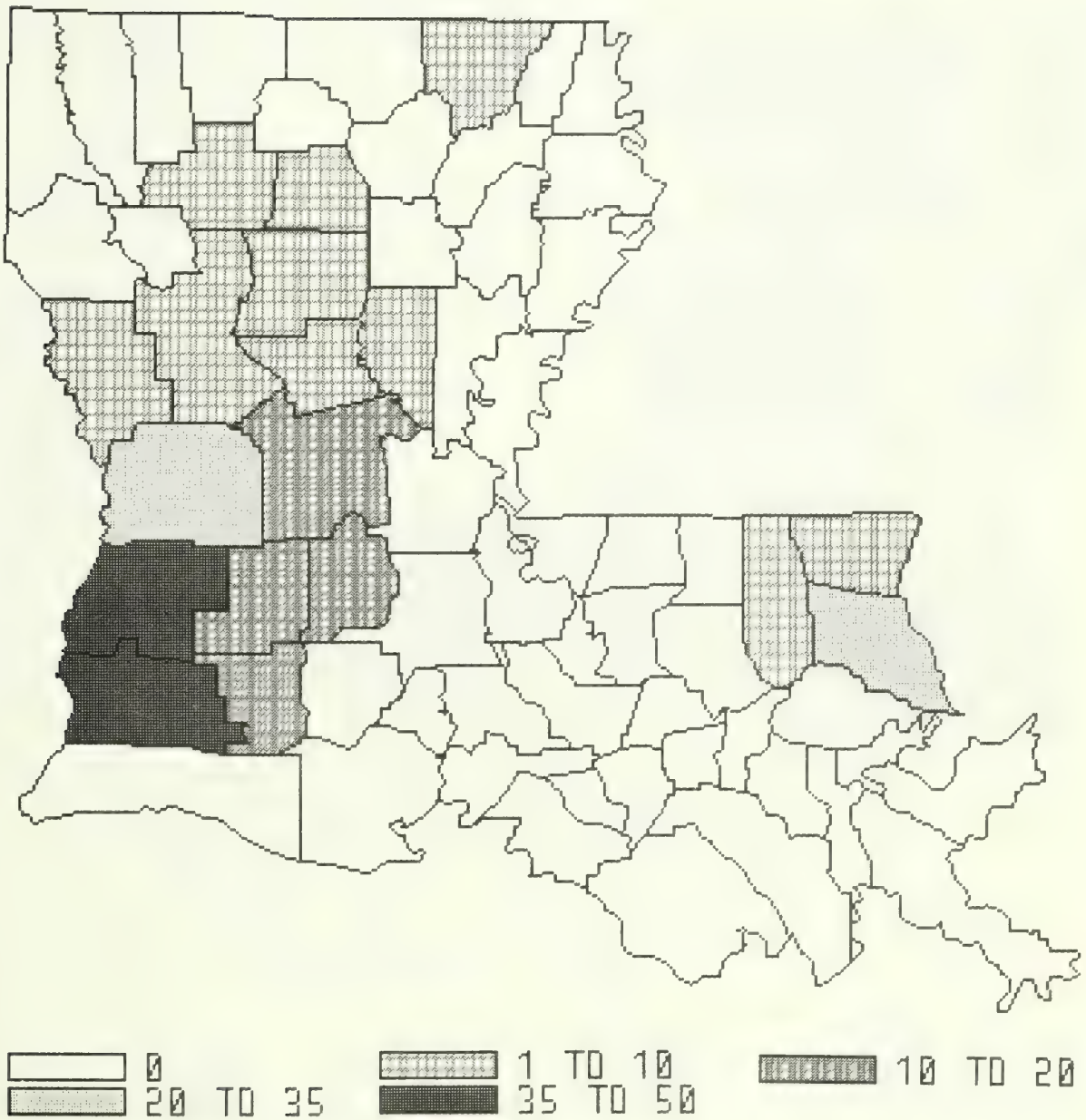


# PERCENT FOREST AREA BY PARISH



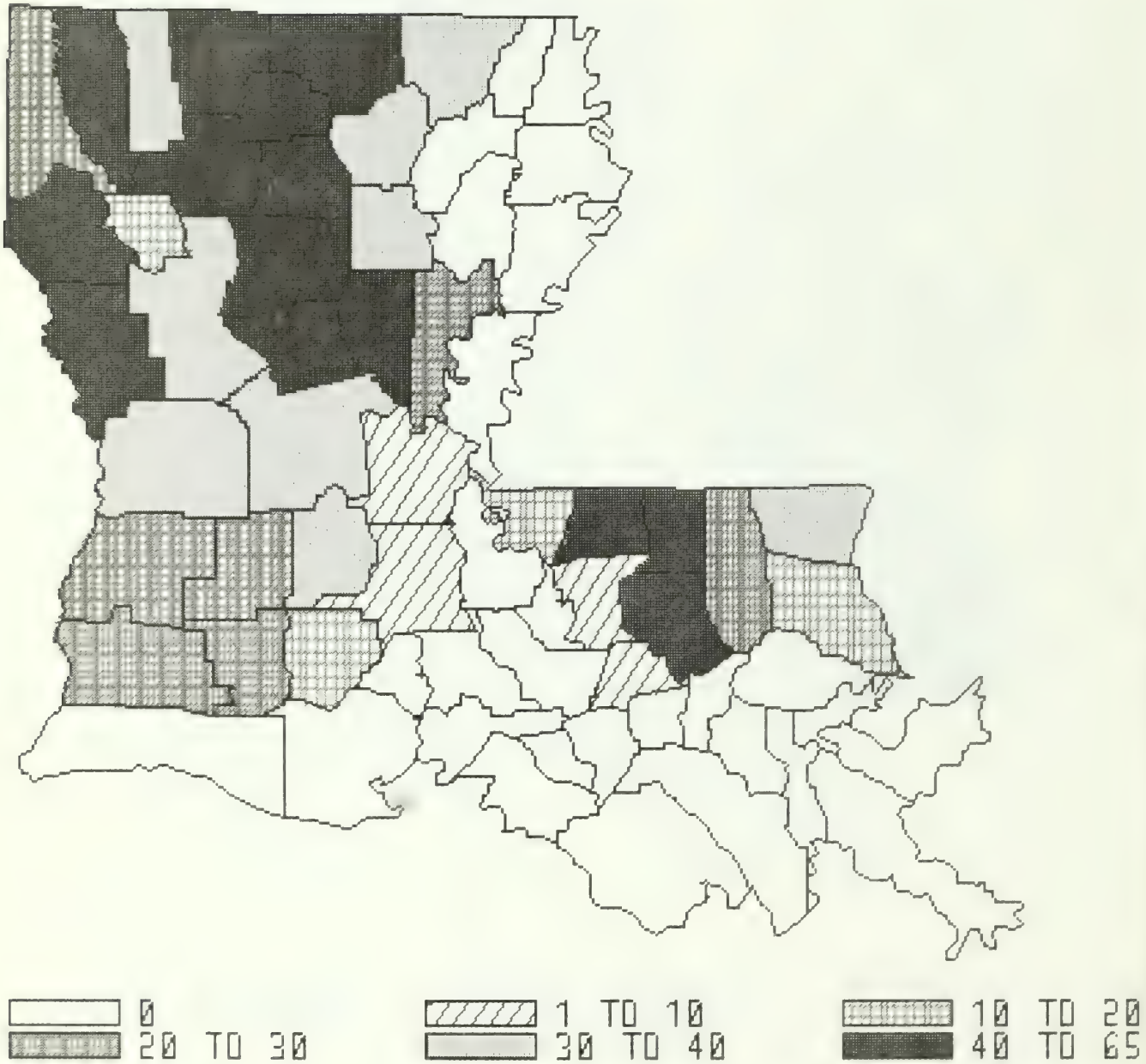
# PERCENT FOREST AREA BY PARISH

LONGLEAF/SLASH FOREST TYPE



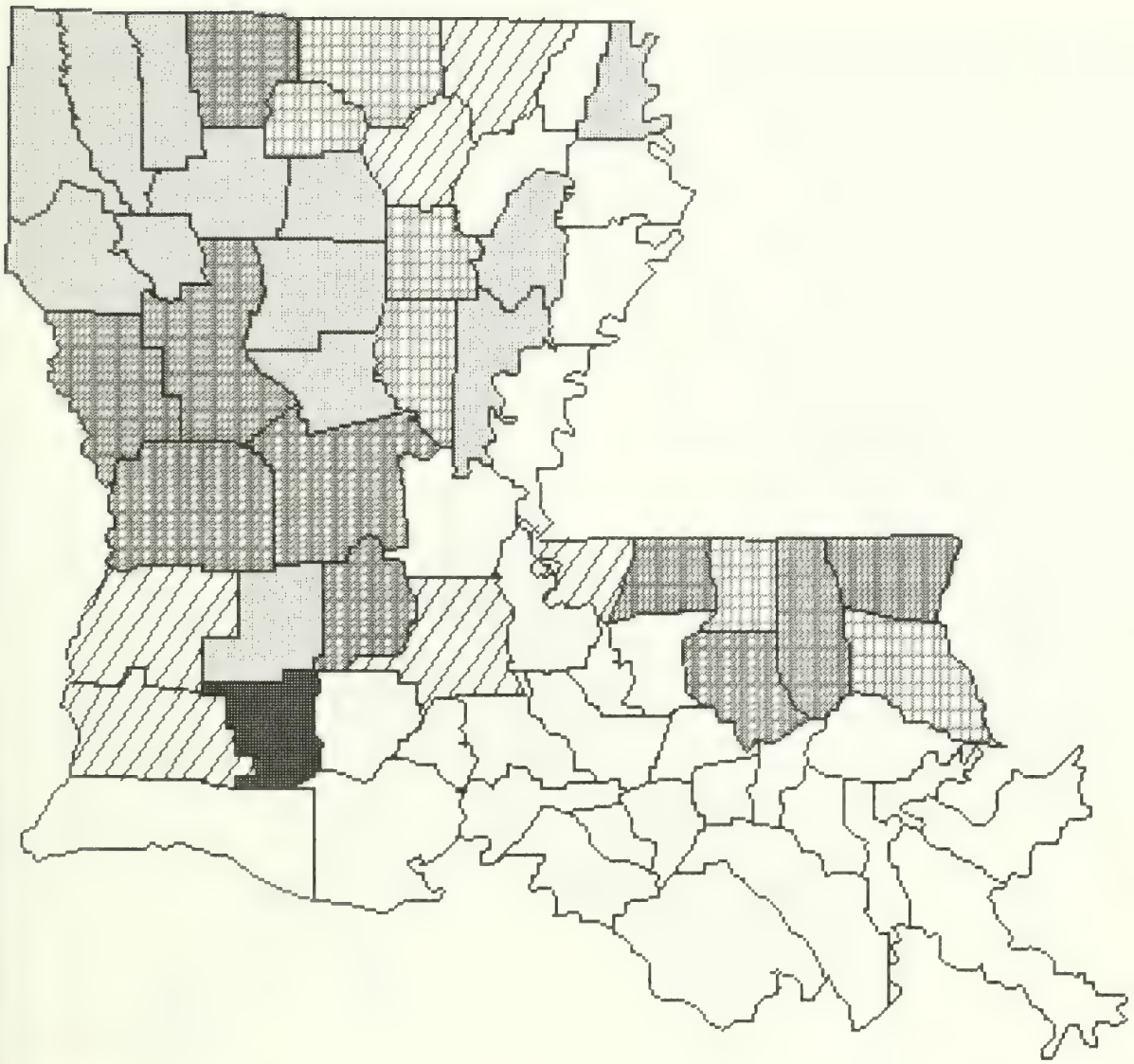
# PERCENT FOREST AREA BY PARISH

LOBLOLLY/SHORTLEAF FOREST TYPE



# PERCENT FOREST AREA BY PARISH

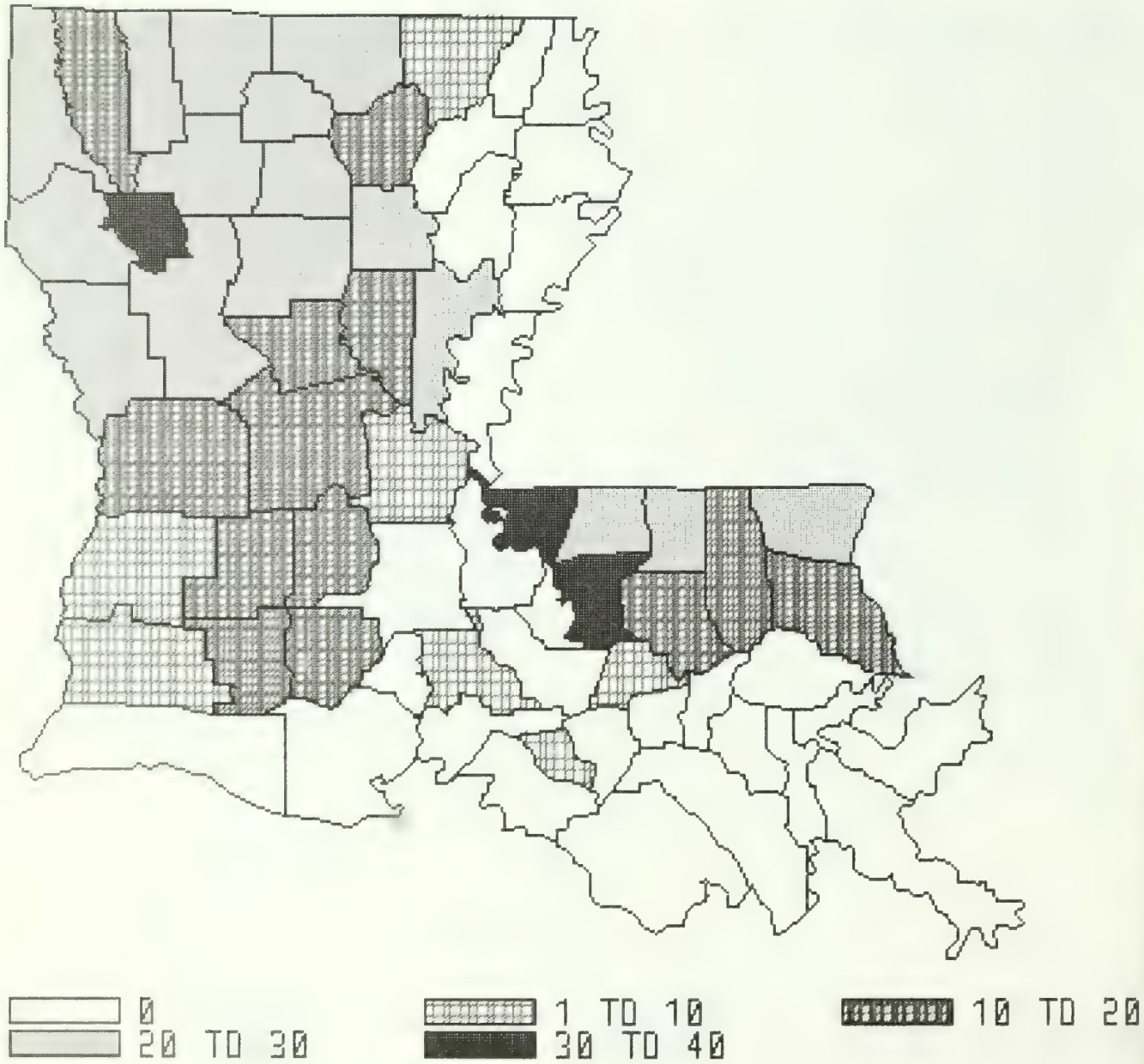
OAK/PINE FOREST TYPE



0
1 TO 10
10 TO 15
15 TO 20
20 TO 30
30 TO 35

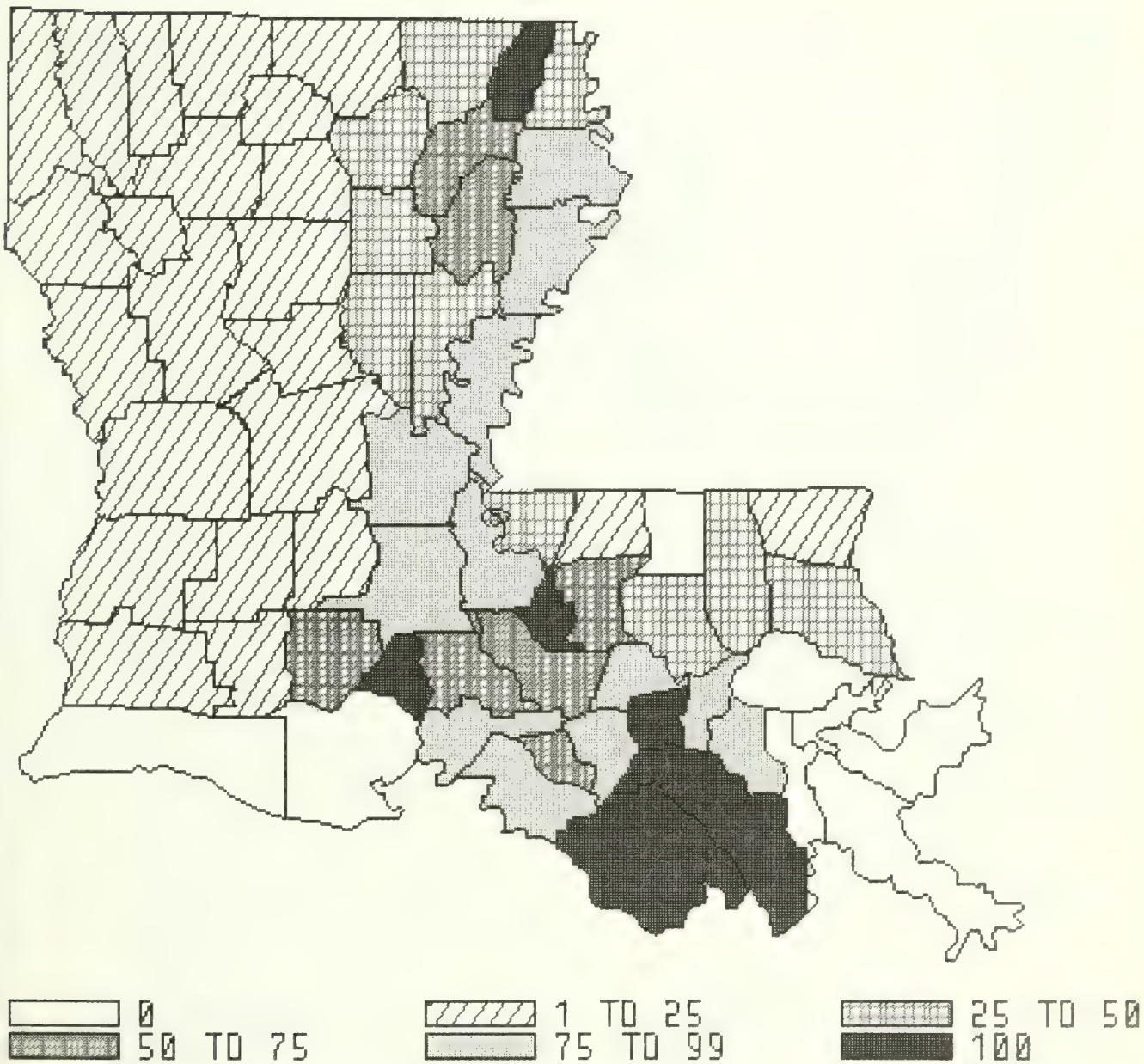
# PERCENT FOREST AREA BY PARISH

OAK/HICKORY FOREST TYPE



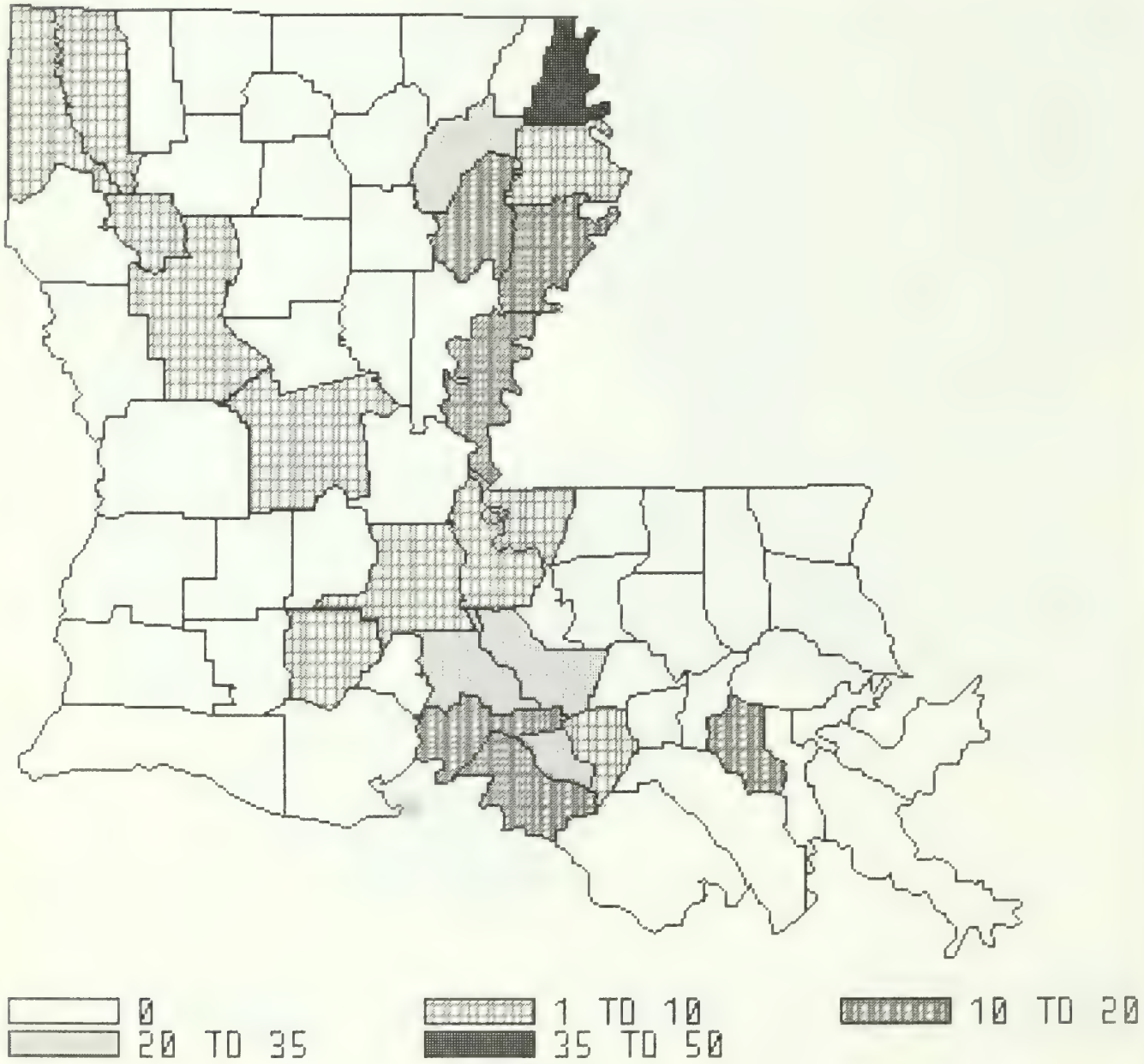
# PERCENT FOREST AREA BY PARISH

OAK/GUM/CYPRESS FOREST TYPE



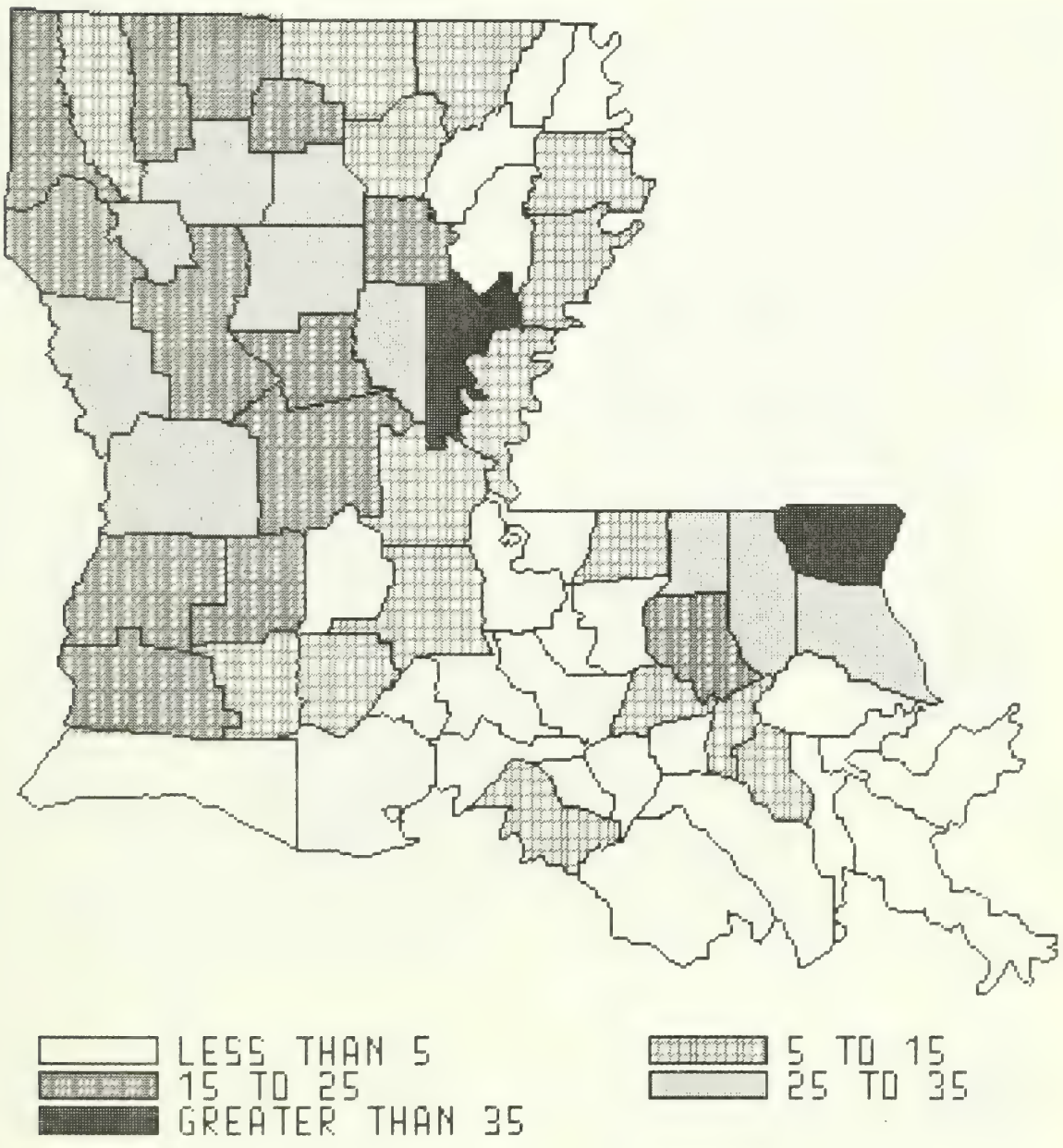
# PERCENT FOREST AREA BY PARISH

ELM/ASH/COTTONWOOD FOREST TYPE



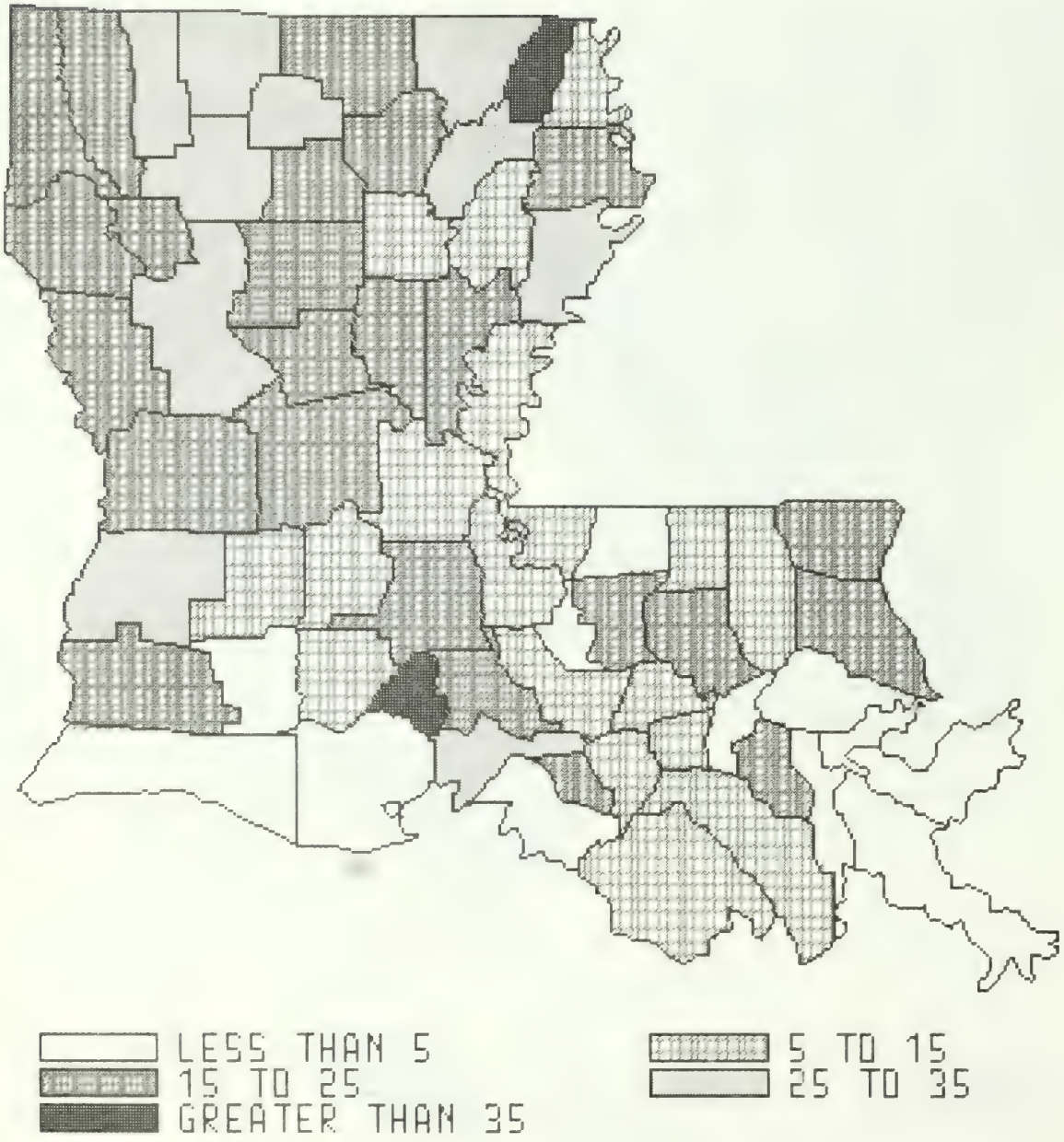
# PERCENT FOREST AREA BY STAND SIZE CLASS

(SAPLINGS)



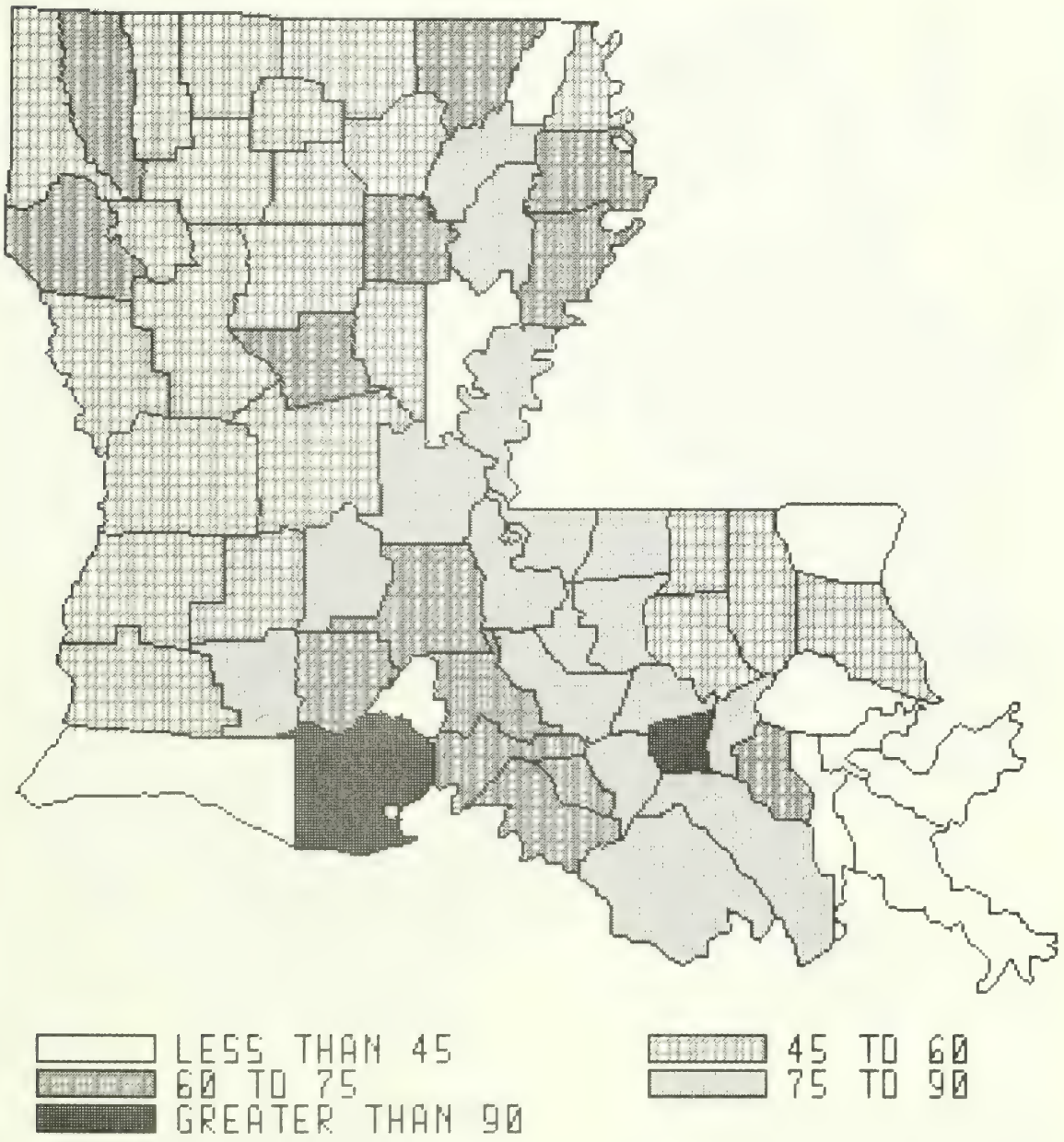
# PERCENT FOREST AREA BY STAND SIZE CLASS

(POLETIMBER)



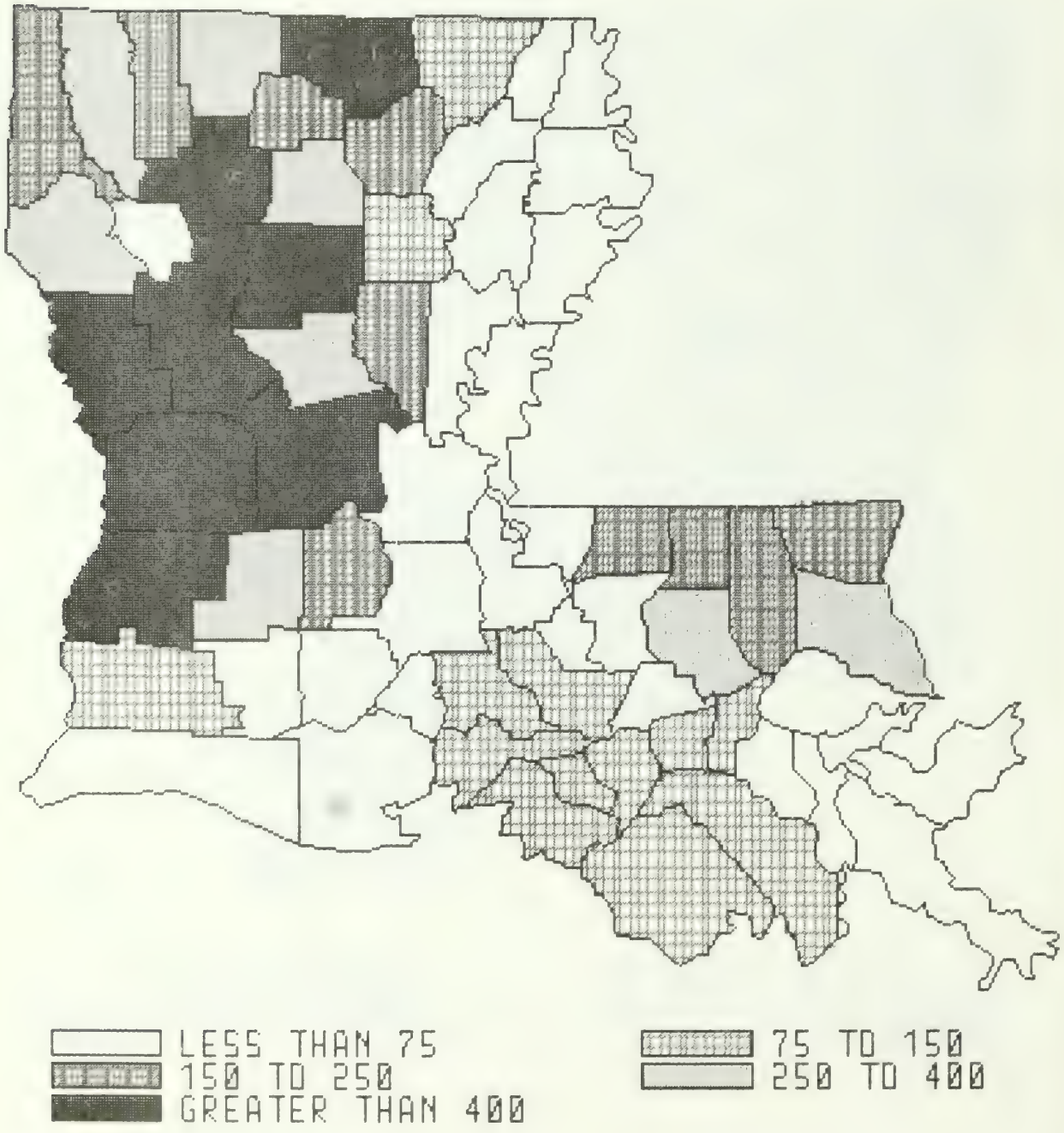
# PERCENT FOREST AREA BY STAND SIZE CLASS

(SAWTIMBER)



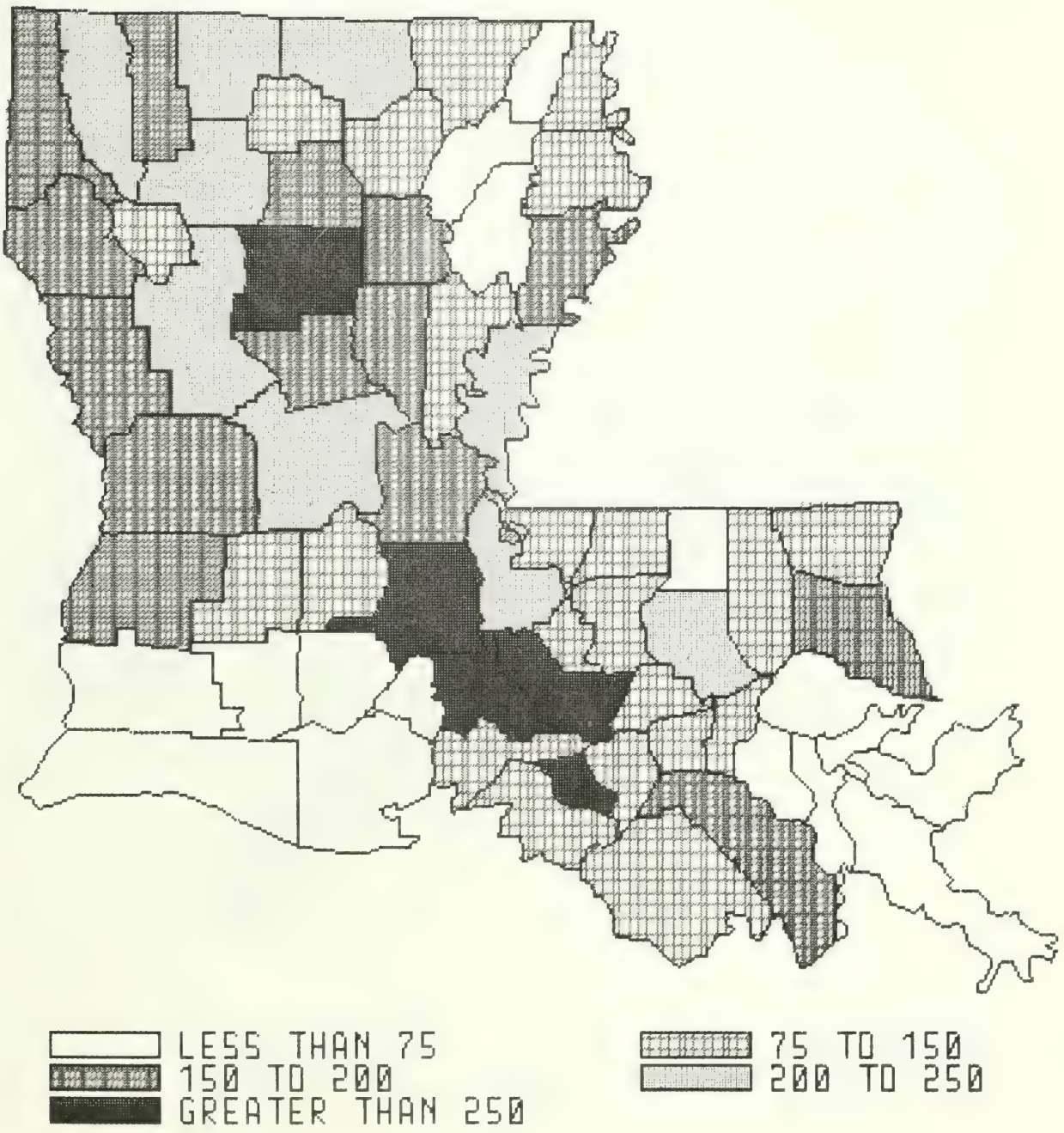
# SOFTWOOD GROWING STOCK VOLUME BY PARISH

(MILLION CUBIC FEET)



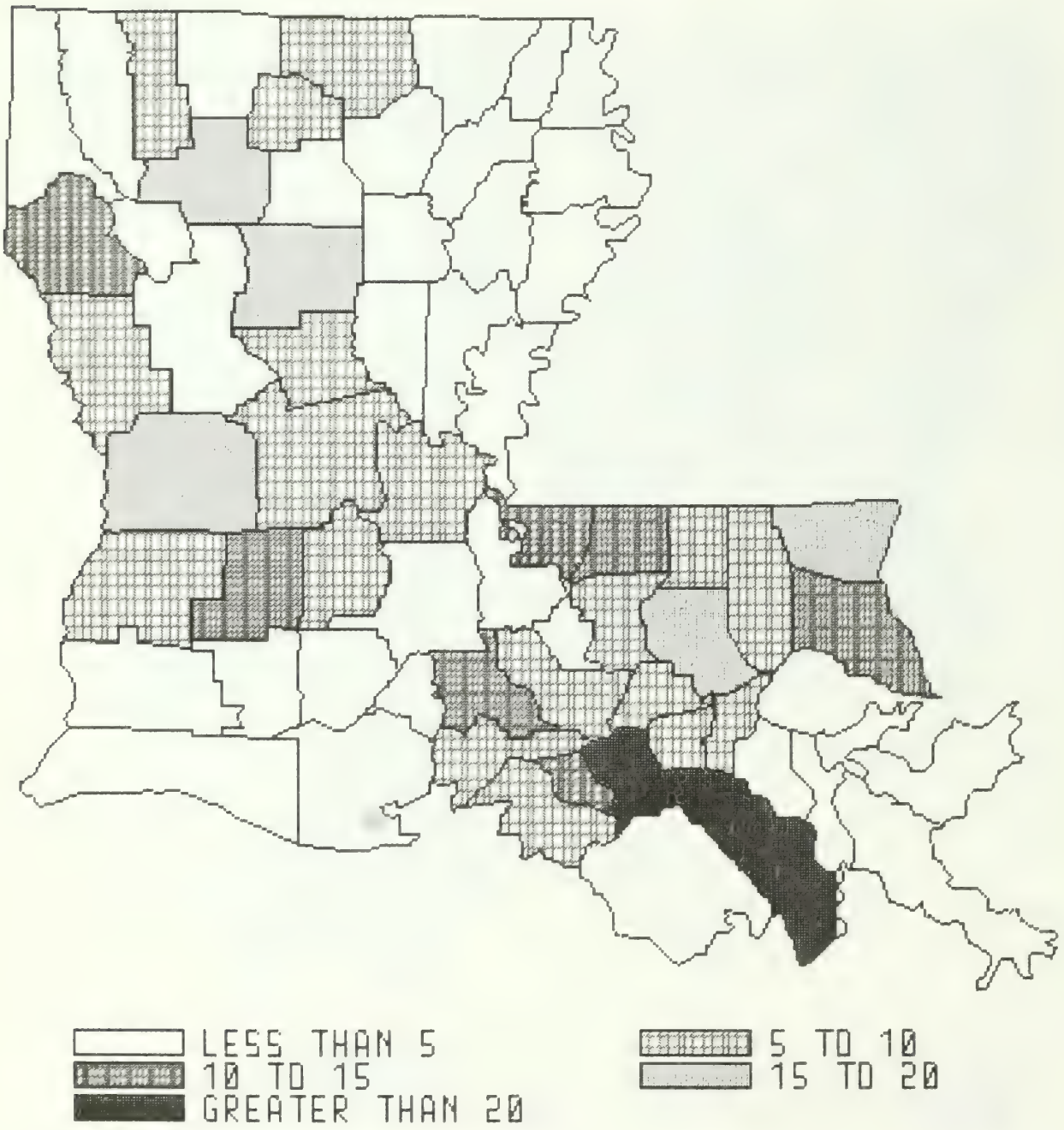
# HARDWOOD GROWING STOCK VOLUME BY PARISH

(MILLION CUBIC FEET)



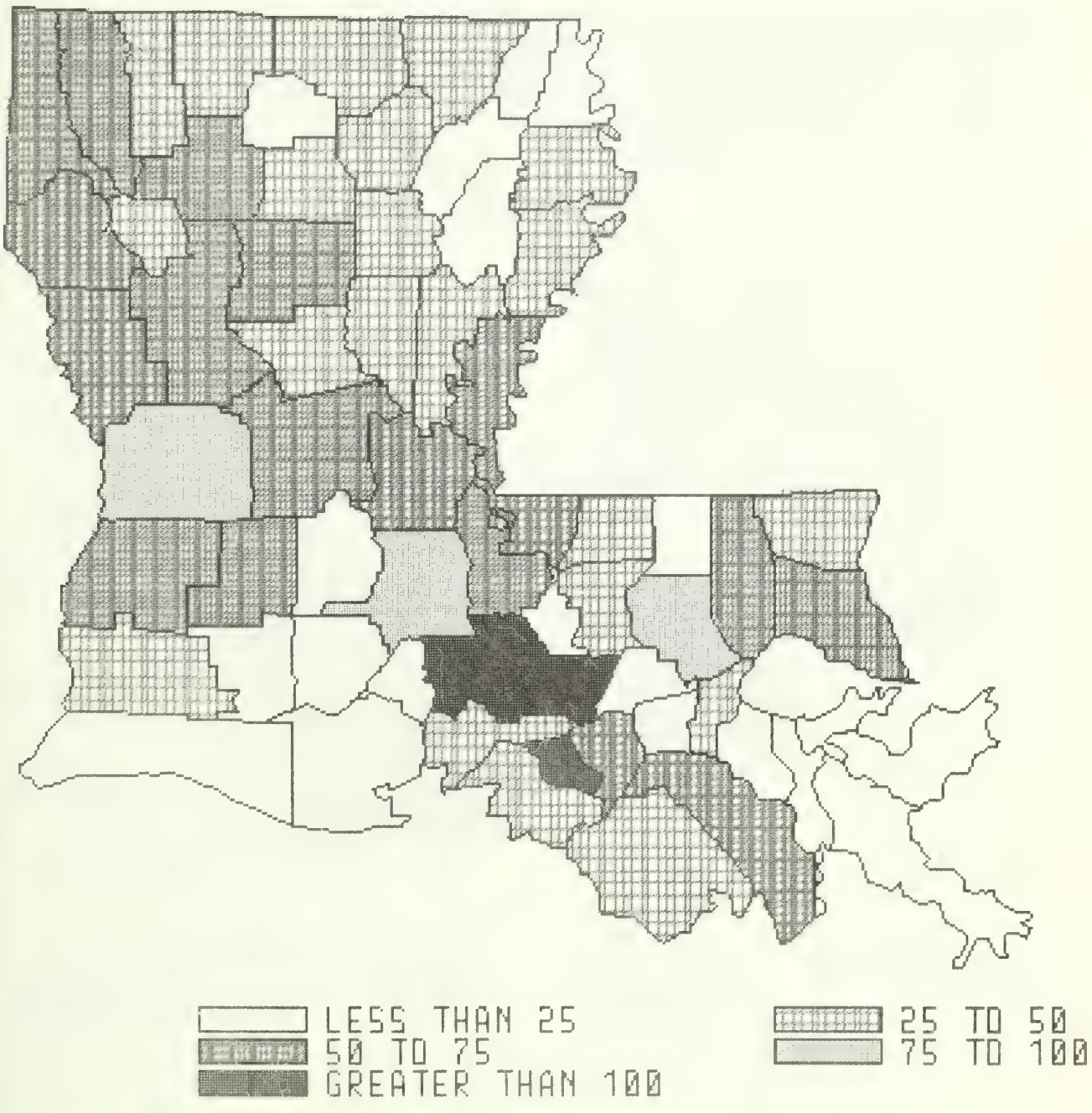
# SOFTWOOD ROUGH & ROTTEN VOLUME BY PARISH

(MILLION CUBIC FEET)

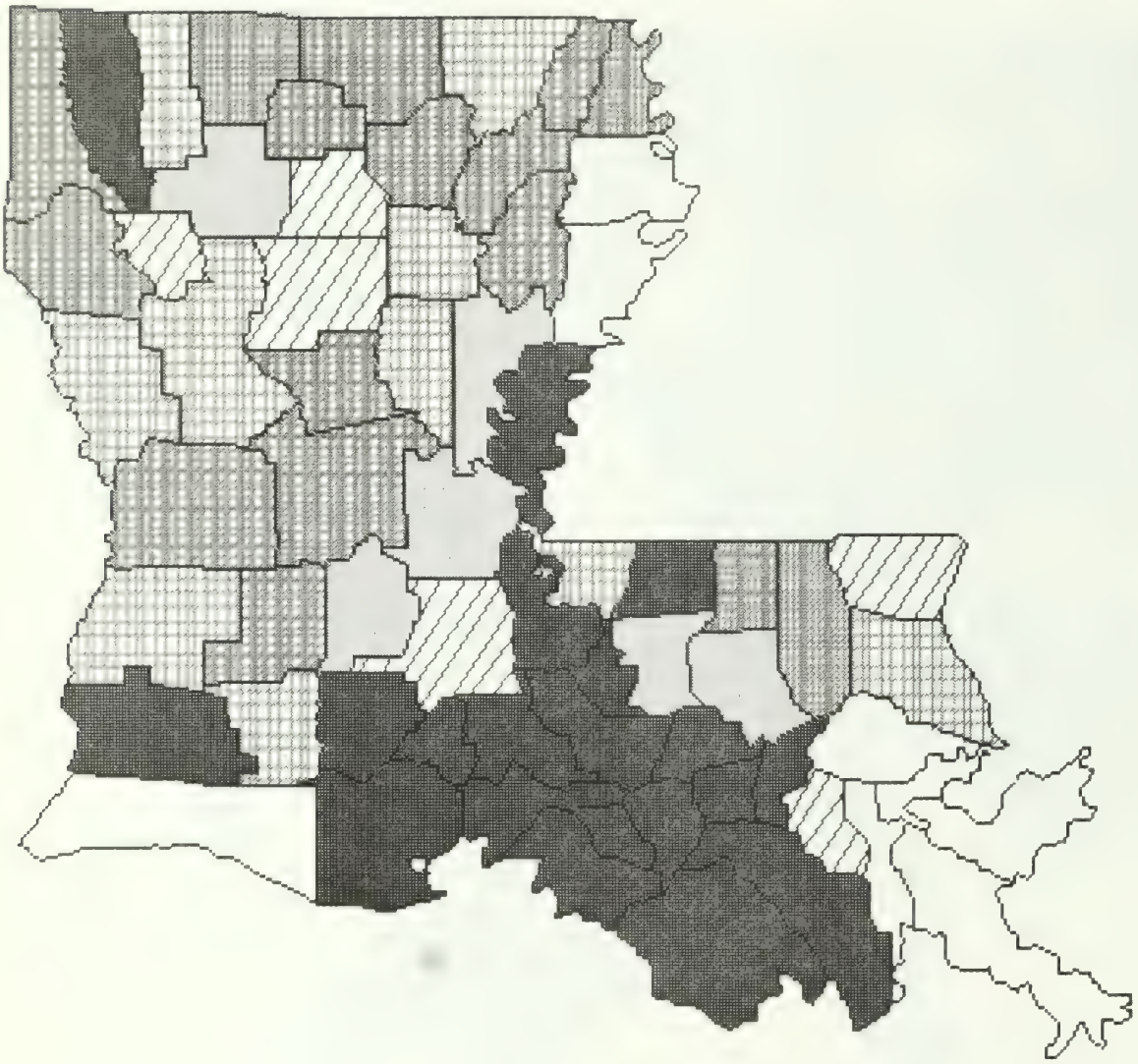


# HARDWOOD ROUGH & ROTTEN VOLUME BY PARISH

(MILLION CUBIC FEET)

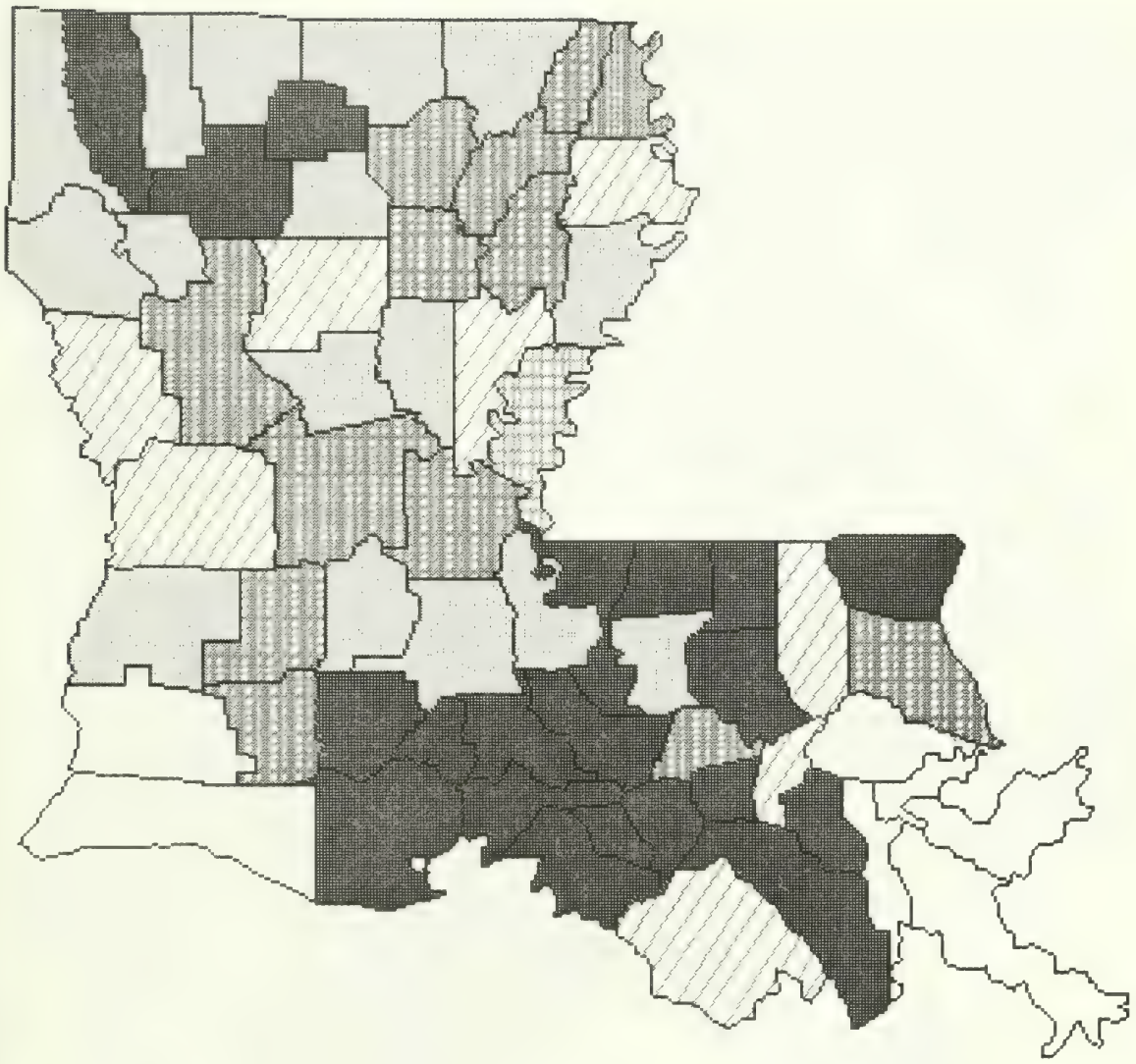


# GROWTH/REMOVALS
(SOFTWOOD)



0
0.5 TO 0.9
0.9 TO 1.1
1.1 TO 1.5
1.5 TO 2.5
GREATER THAN 2.5

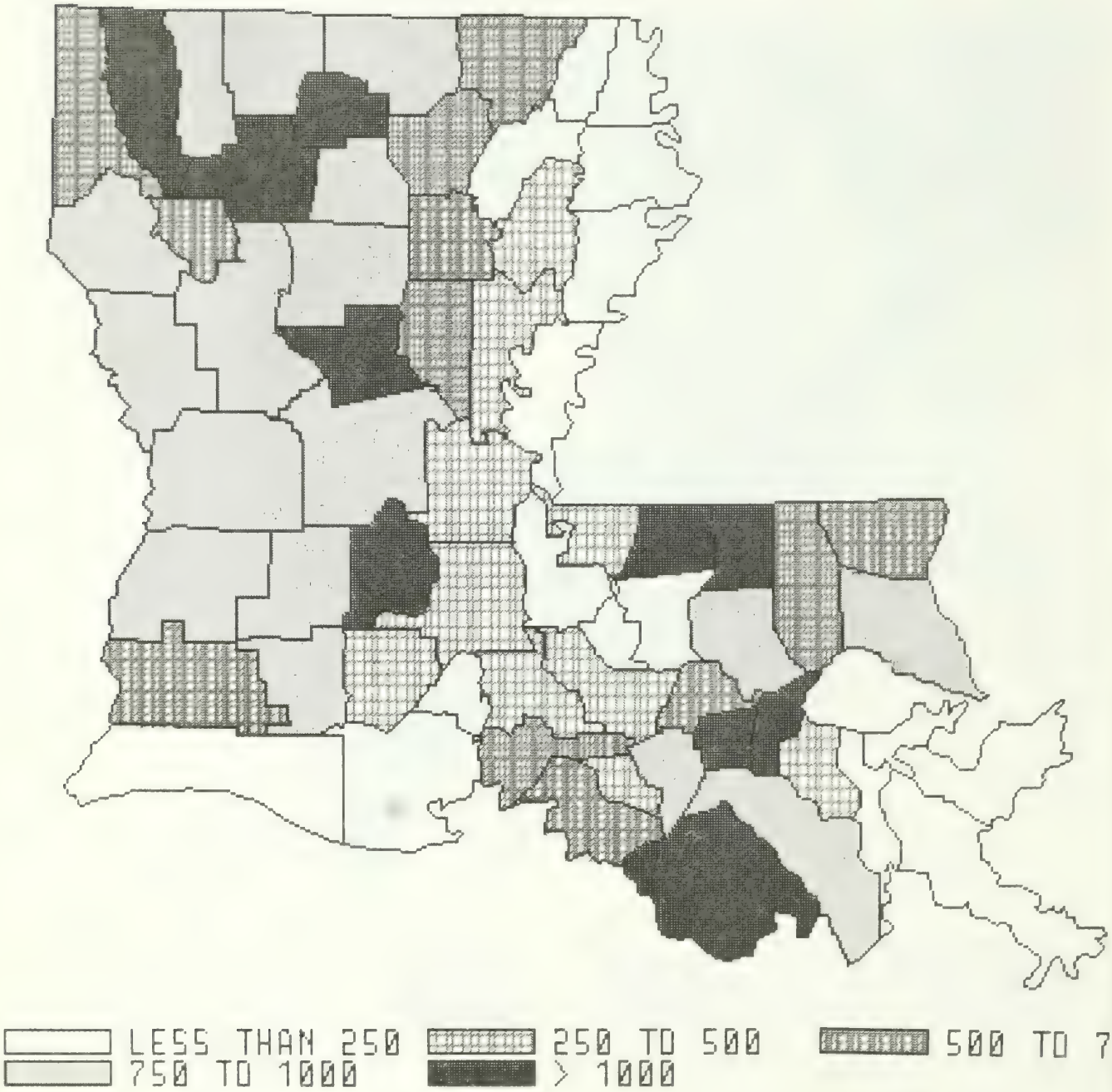
# GROWTH/REMOVALS
(HARDWOOD)



LESS THAN 0.5
0.5 TO 0.9
0.9 TO 1.1
1.1 TO 1.5
1.5 TO 2.5
GREATER THAN 2.5

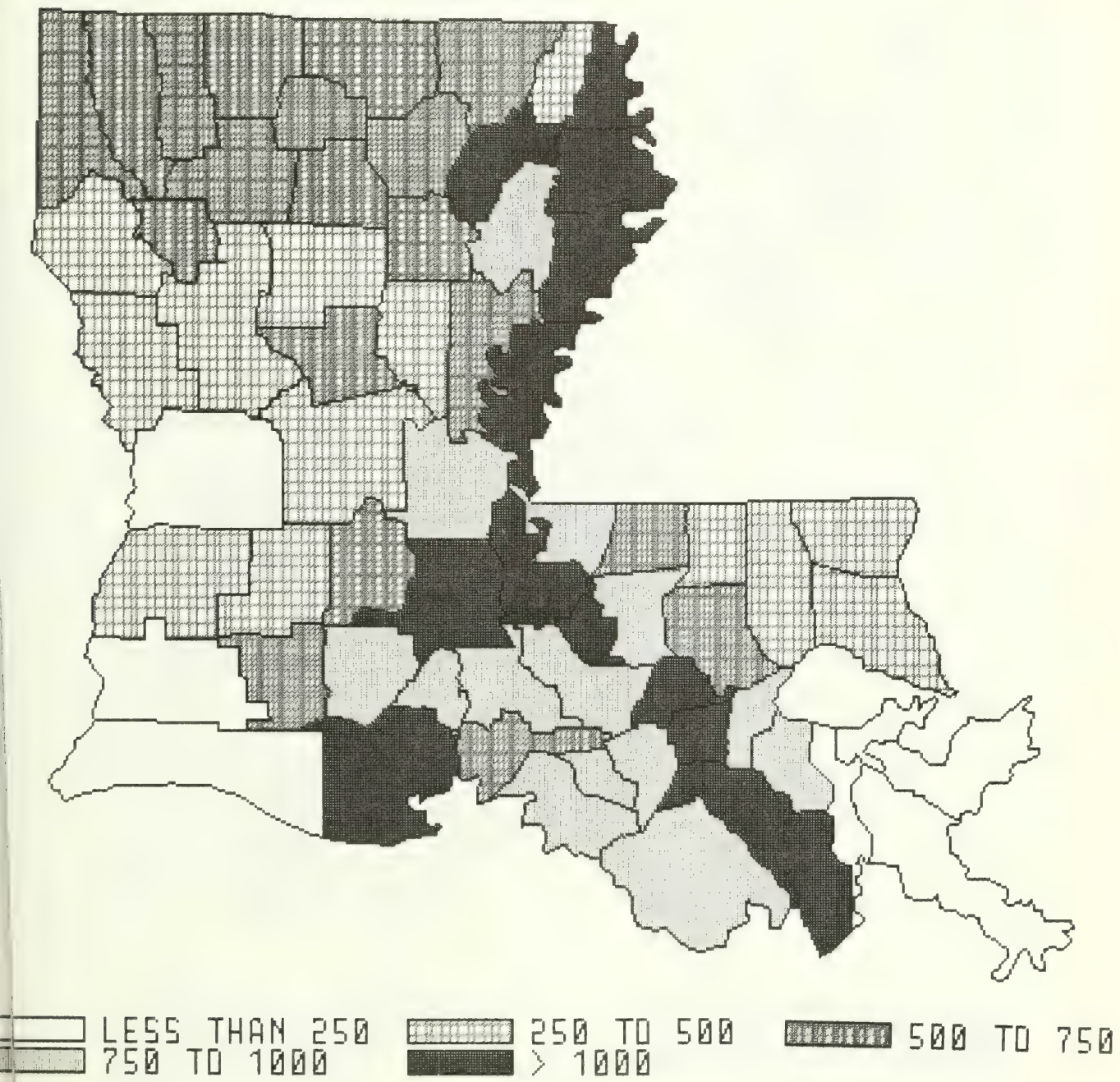
# AVERAGE SOFTWOOD GROWING STOCK VOLUME

(CUBIC FEET PER ACRE)



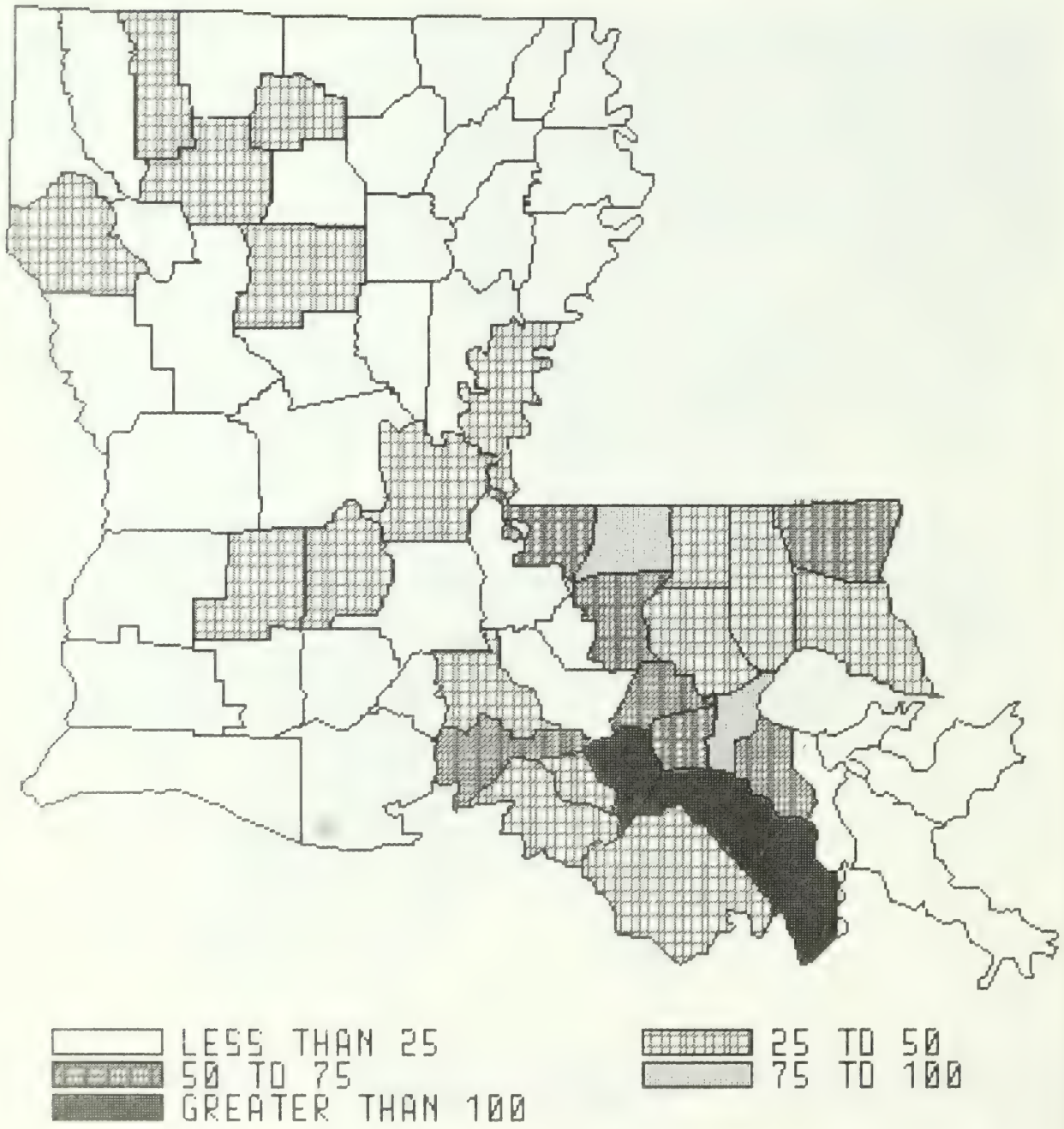
# AVERAGE HARDWOOD GROWING STOCK VOLUME

(CUBIC FEET PER ACRE)



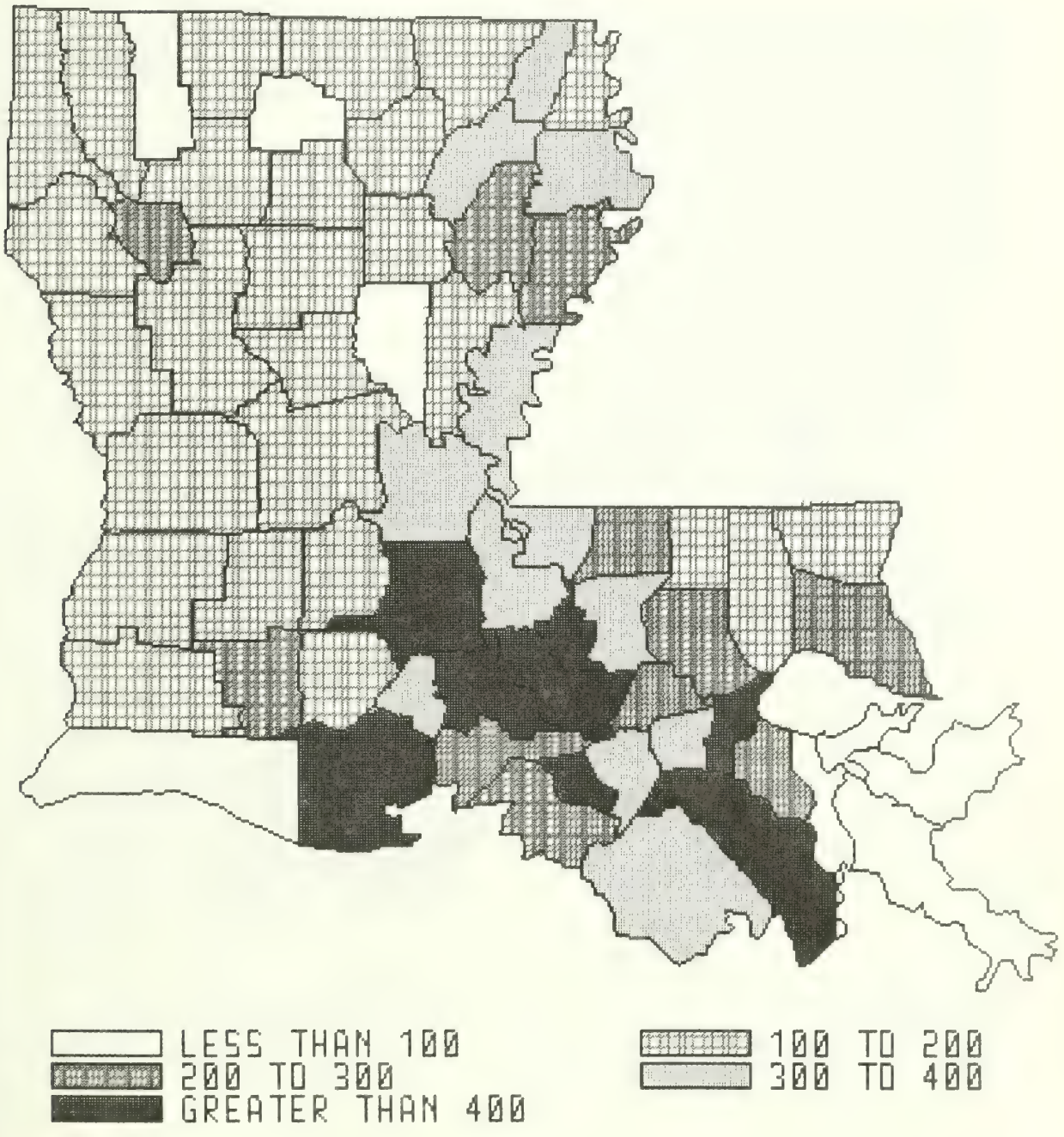
# AVERAGE SOFTWOOD ROUGH & ROTTEN VOLUME

(CUBIC FEET PER ACRE)



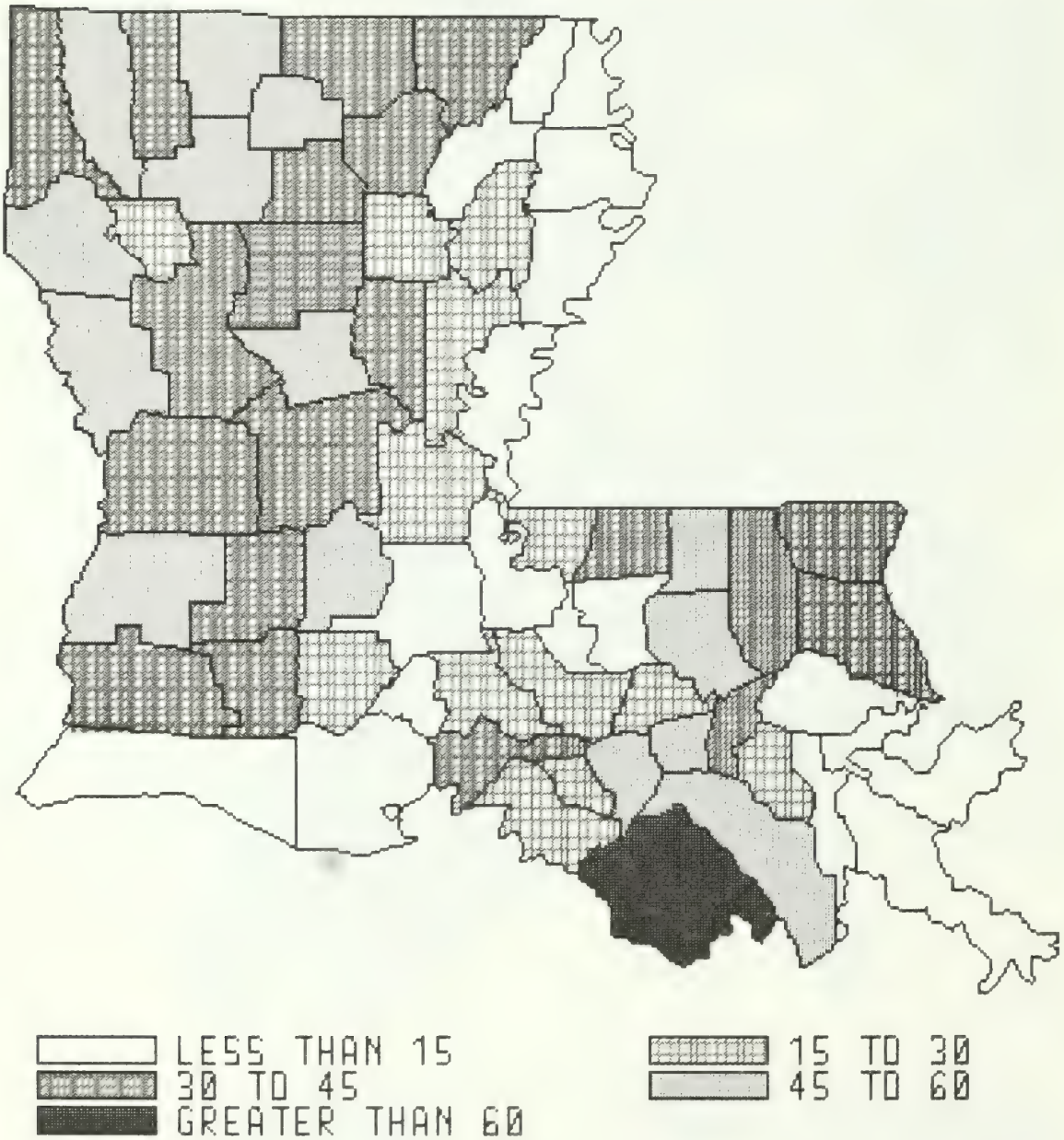
# AVERAGE HARDWOOD ROUGH & ROTTEN VOLUME

(CUBIC FEET PER ACRE)



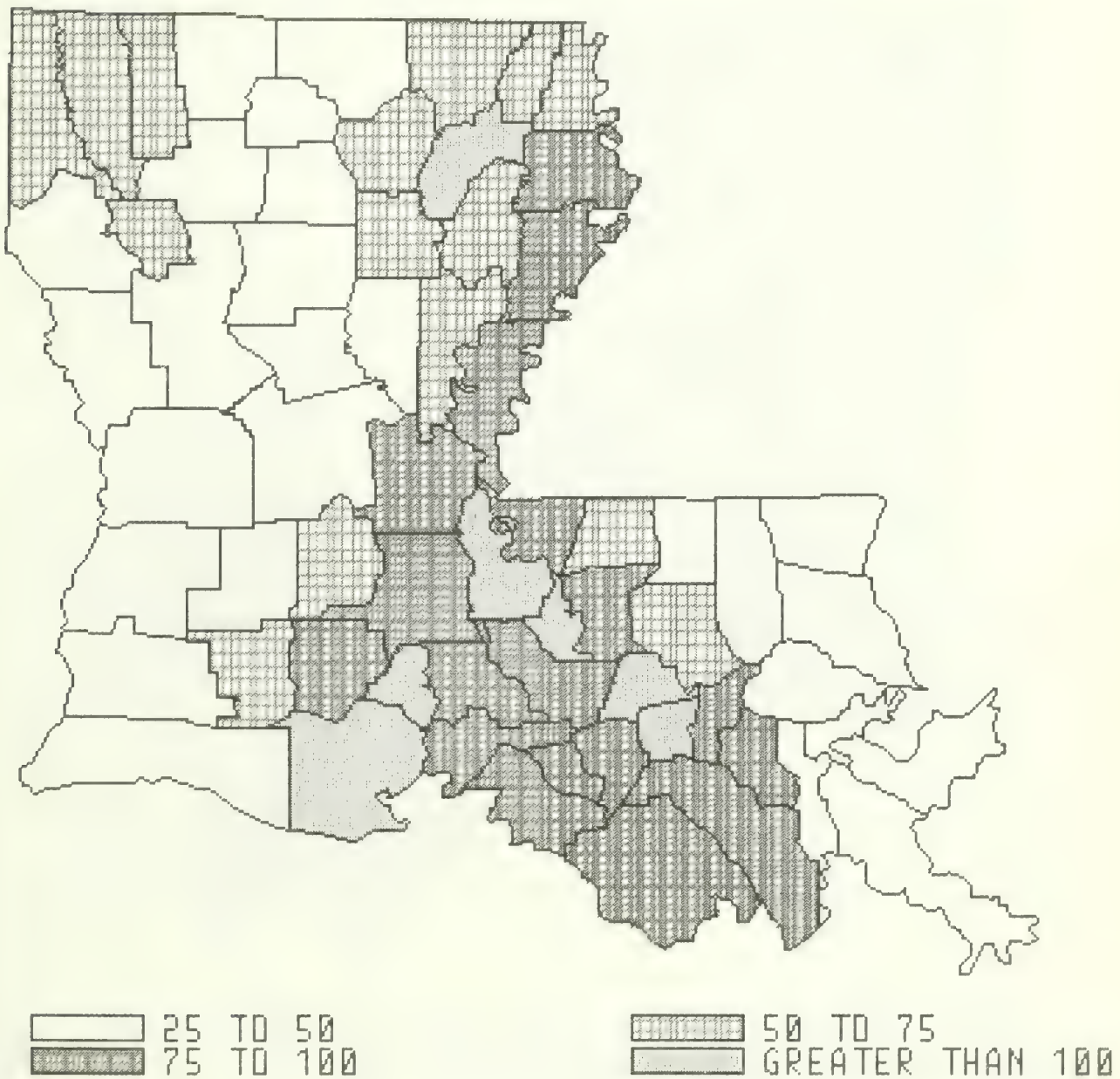
# AVERAGE SOFTWOOD BASAL AREA/ACRE BY PARISH

(IN SQUARE FEET)



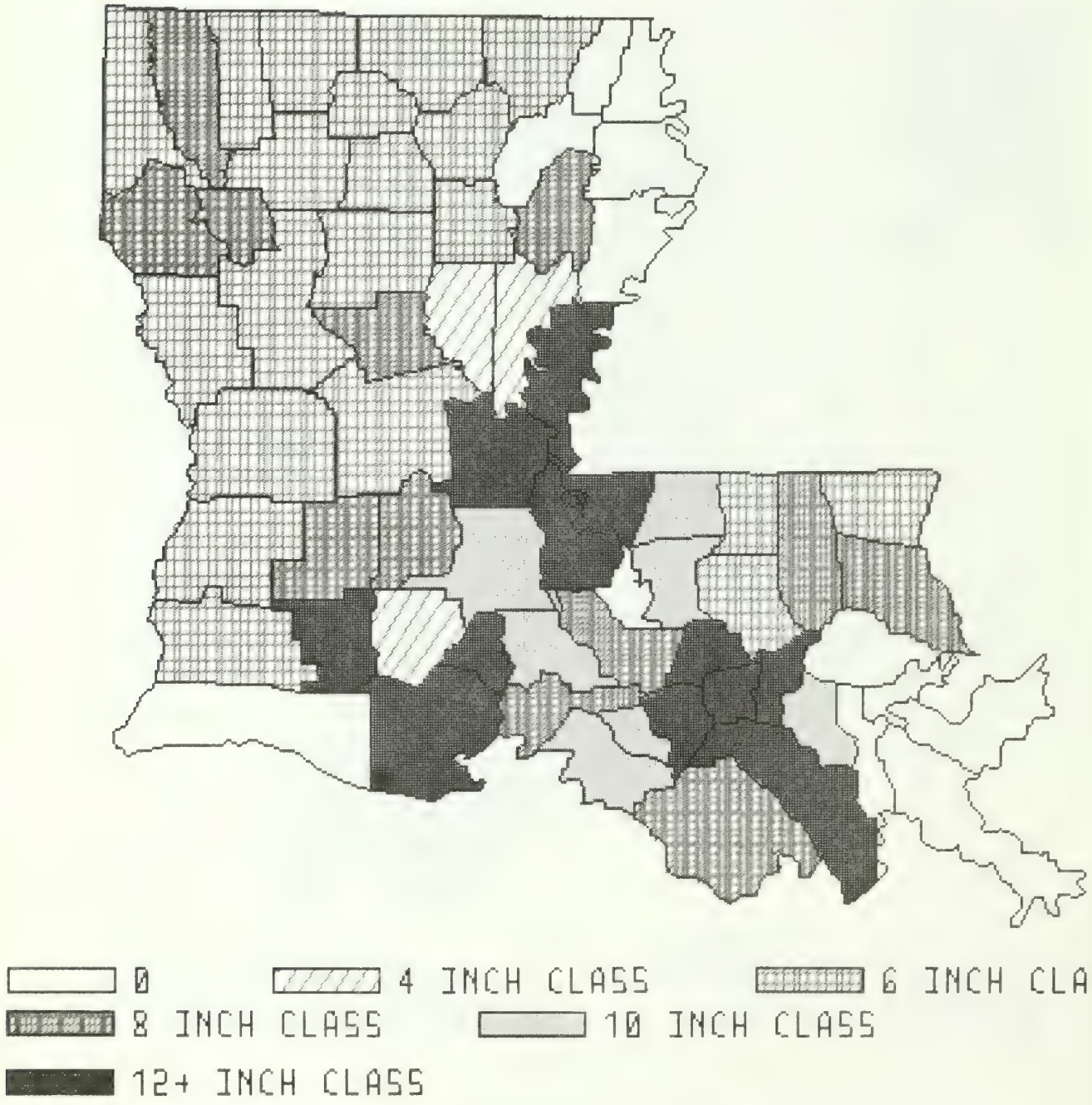
# AVERAGE HARDWOOD BASAL AREA/ACRE BY PARISH

(IN SQUARE FEET)



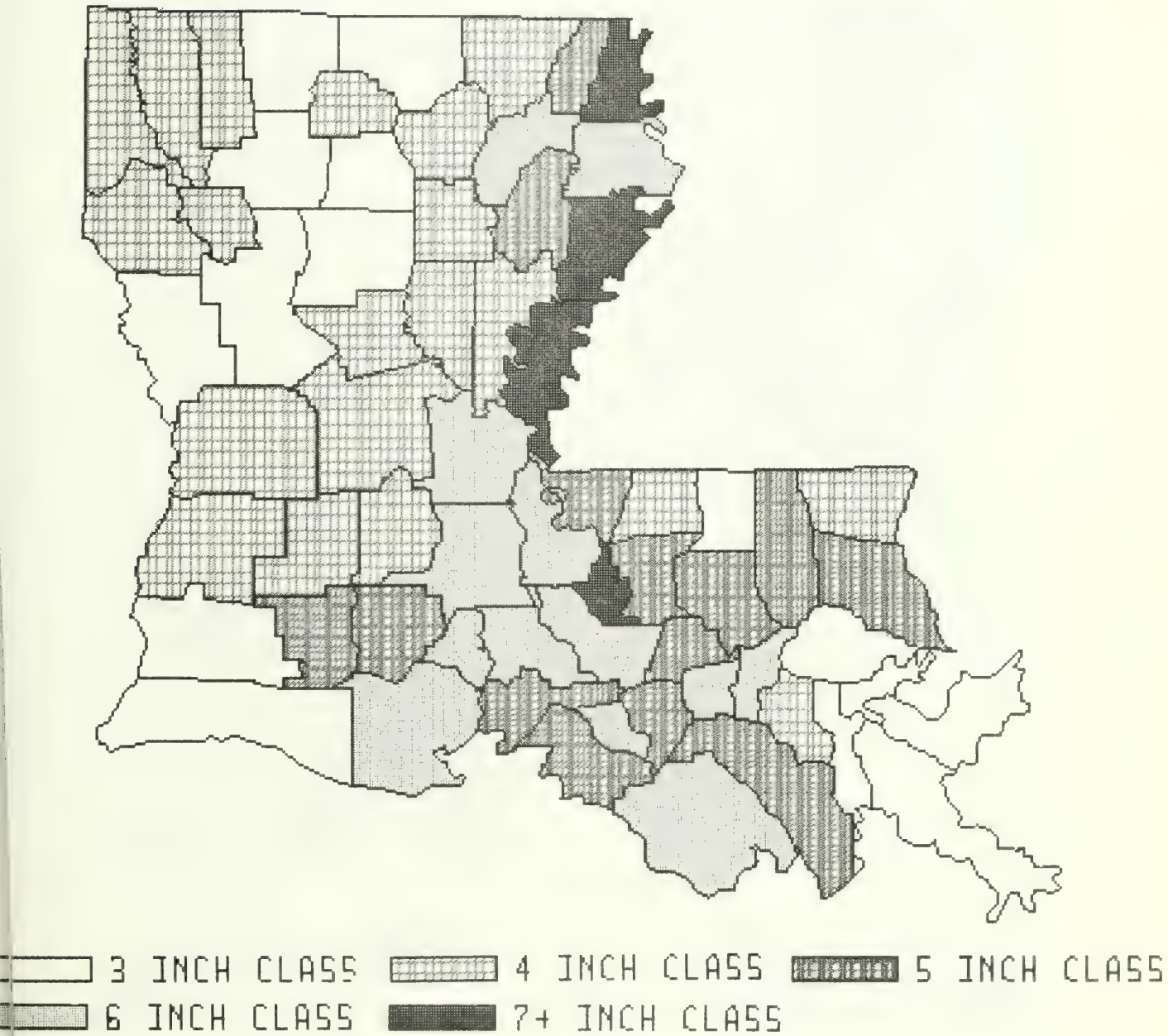
# AVERAGE SOFTWOOD DBH BY PARISH

(QUADRATIC MEAN DIAMETER)



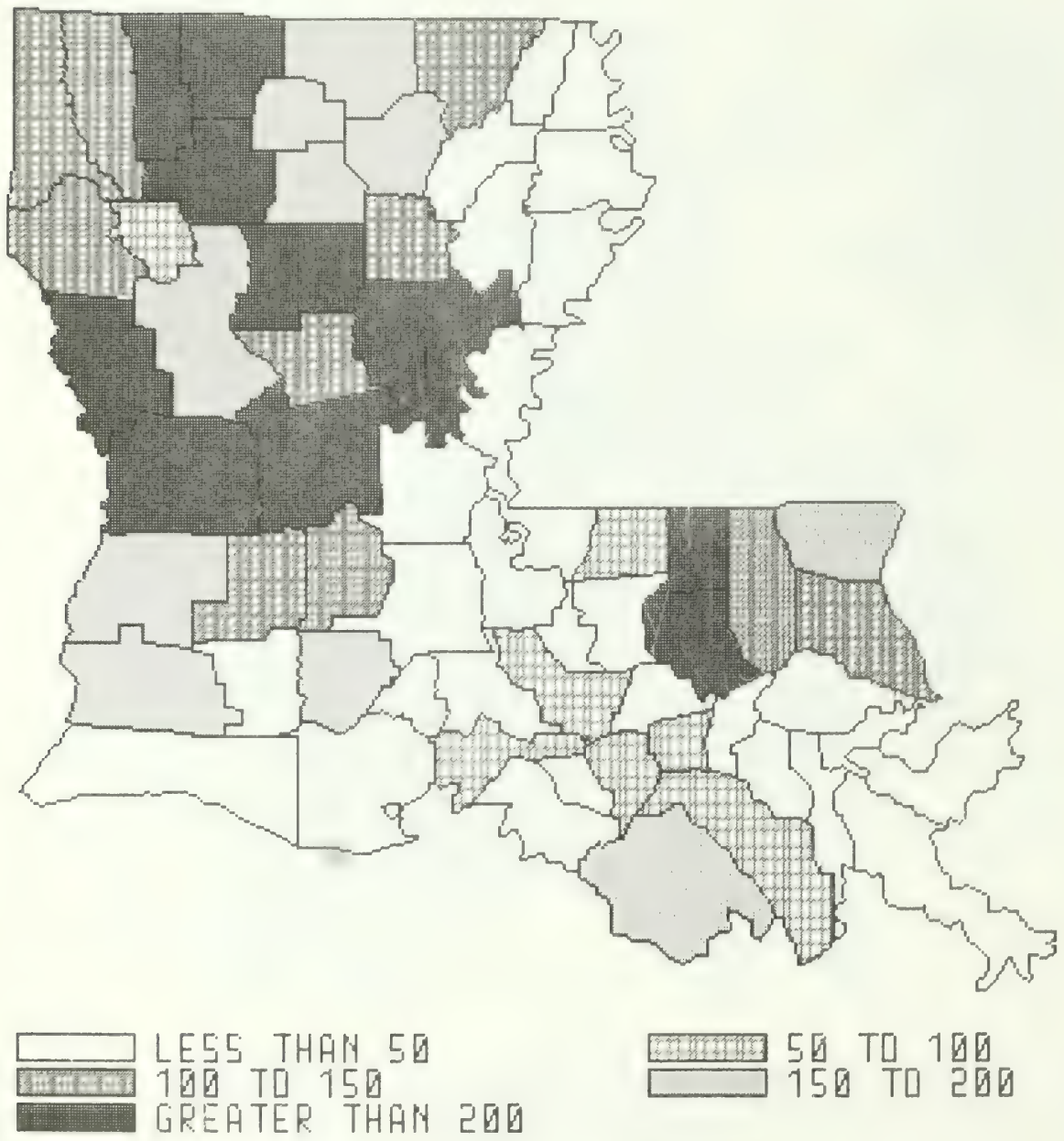
# AVERAGE HARDWOOD DBH BY PARISH

(QUADRATIC MEAN DIAMETER)



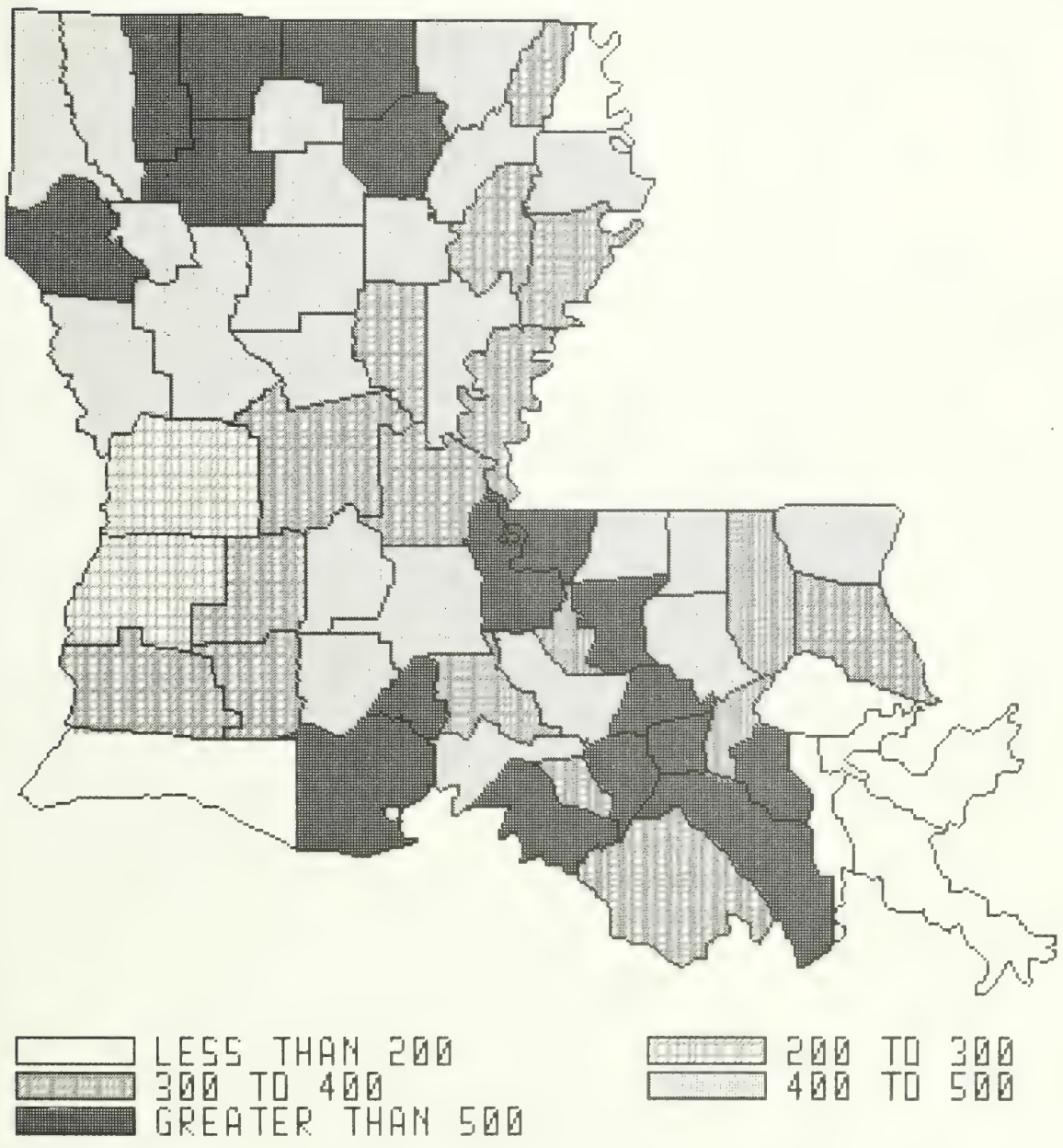
# AVERAGE NUMBER LIVE TREES/ACRE BY PARISH

(SOFTWOOD)



# AVERAGE NUMBER LIVE TREES/ACRE BY PARISH

(HARDWOOD)



May, Dennis M., and Bertelson, Daniel F., Forest statistics for Louisiana parishes .
Resourc. Bull. SO-115 . New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1986. 59p.

Tabulates forest resource information from a new inventory of Louisiana parishes.

**Additional Keywords:** Area, volume, forest type, stand size, ownership.

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# Forest Resource Trends and Current Conditions in the Lower Mississippi Valley

Victor A. Rudis and Richard A. Birdsey

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## INTRODUCTION

Forest resources in the lower Mississippi Valley occupy some of the best areas suited to supplying multiple benefits. The forests constitute some of the more productive timber sites in the United States; provide important wintering areas for migratory birds; supply essential habitat for a variety of fish, birds, and mammals; and aid in erosion control, water retention, and water purification. Past land clearing and projected declines in bottomland hardwood acreage, however, have caused widespread concern over the future of these forests (Spencer 1981). Moreover, many remaining stands are in a degraded condition due to past high-grading practices (Smith and Linnartz 1980). This paper documents trends and current conditions from periodic surveys of timberland in the lower Mississippi Valley, also described as the Delta (fig. 1).

Forest resource information has been gathered by the Forest Inventory and Analysis unit (formerly Forest Survey) of the U.S. Forest Service since the 1930's. Data are obtained by a sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurements of trees at sample locations. Sample locations are at the intersections of perpendicular grid lines spaced at 3-mile intervals. Surveys are conducted periodically in each State at approximately 10-year intervals. Detailed tree information is derived from measurements on land classified as timberland. Timberland, synonymous with commercial forest land, is forest land capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation. Descriptions of survey procedures are provided in Frayer and Beltz (1986), Murphy (1978), and van Hees (1980).

Current conditions and trends in the Delta have been compiled from available survey records. Due to changes in survey procedures and information needs over time (Frayer and Beltz 1986), inclusion of some of the older survey data in this current assessment was not possible.

Figure 1.—*Counties of the Delta Region.*

Victor A. Rudis and Richard A. Birdsey are research foresters, Southern Forest Experiment Station, Forest Service—USDA, Starkville, MS.

## AREA CHANGES

In the mid-1930's, 11.8 million acres in the Delta were classified as timberland (Sternitzke and Christopher 1970). In a 1976 report, Sternitzke (1976) had recorded 7.2 million acres of timberland. The latest survey statistics show 6.6 million acres of timberland, just more than half the 1930's estimate, and an 8 percent decline in the past decade. The loss of bottomland hardwood acreage accounts for virtually all of the decline (fig. 2). The total acreage of other forest types, loblolly-shortleaf and upland hardwood, has remained virtually unchanged since the 1947–54 survey period.

Since the time of the earliest surveys, bottomland hardwood acreage has declined 65 percent in Arkansas, 50 percent in Mississippi, and 45 percent in Louisiana (table 1). The rate of decline has slowed considerably in recent years, however.

In the past two decades, shifts to nonforest land uses have been attributable mainly to conversion of bottomland hardwood forests to agricultural crops (table 2). Soybeans constitute the major crop on converted bottomland acres (MacDonald and others 1979). More recently, rice and milo have been replacing soybeans as agricultural crops. Much of the remaining acreage in bottomland hardwood forest is currently unsuitable for crop production, primarily due to a lack of flood or drainage control (MacDonald and others 1979).

Table 1.—*Area of bottomland hardwoods in the Delta by State and year of survey*

| Survey year | State | | |
|---|---|---|---|
| | Arkansas | Louisiana | Mississippi |
| | *Thousand acres* | | |
| 1932 | ..... | ..... | 1,906.5 |
| 1935 | 3,604.0 | 5,229.0 | ..... |
| 1947 | ..... | ..... | 1,601.5 |
| 1950 | 2,594.9 | ..... | ..... |
| 1954 | ..... | 4,583.9 | ..... |
| 1957 | ..... | ..... | 1,471.9 |
| 1959 | 2,490.2 | ..... | ..... |
| 1964 | ..... | 4,294.2 | ..... |
| 1967 | ..... | ..... | 1,013.1 |
| 1969 | 1,369.9 | ..... | ..... |
| 1974 | ..... | 3,427.4[2] | ..... |
| 1977 | ..... | ..... | 954.5[1] |
| 1978 | 1,264.1 | ..... | ..... |
| 1984 | ..... | 2,897.8 | ..... |

[1]Revised from Murphy (1978) (956.1)
[2]Revised from Sternitzke (1973) (3427.8)

## STAND CHANGES

Shifts in the Delta's forest stand structure and species composition have occurred as stands matured and as selective land clearing and timber removals were practiced. Changes in water flow dynamics have also affected species composition in the Delta forests.

Currently, species common in Delta bottomland hardwood forests include: oaks, sweetgum, tupelo, and cypress. These species comprise 46 percent of all trees. Hackberry, maples, ashes, and hickories represent an additional 34 percent of the trees. The remaining 20 percent is spread out over many other species (table 3). Trends in the diameter distribution of live trees reflect the increasing age of remaining stands (table 4).

In the Louisiana portion of the Delta, major reductions in oaks, sweetgum, ash, and hickory have occurred between 1974 and 1984. Increases have occurred principally in cypress and red maple, with

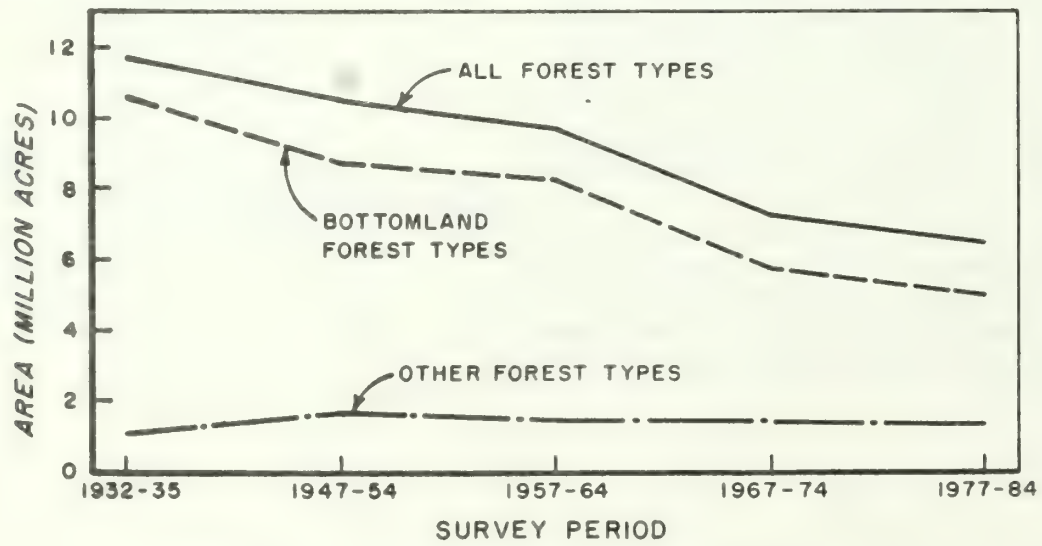


Figure 2.—*Timberland area by forest type and survey period in the Delta.*

Table 2.—*Timberland changes in the Delta by State, intersurvey period, and type of land use change*

| State | Period of change | Net change | Additions from: | | Diversions to: | |
|---|---|---|---|---|---|---|
| | | | Agriculture | Other[1] | Agriculture | Other[1] |
| | | | *Thousand acres* | | | |
| Arkansas | | | | | | |
| | 1959–1969 | −1,274.2 | 41.6 | 32.8 | −1,251.6 | − 97.0 |
| | 1969–1978 | − 149.4 | 160.7 | 34.7 | − 285.5 | − 59.3 |
| Louisiana | | | | | | |
| | 1964–1974 | − 894.2 | 42.5 | 75.9 | − 873.3 | −139.3 |
| | 1974–1984 | − 446.7 | 125.4 | 93.7 | − 437.6 | −228.2 |
| Mississippi | | | | | | |
| | 1957–1967 | − 423.3 | 10.0 | 12.8 | − 387.2 | − 58.9 |
| | 1967–1977 | − 12.4 | 190.3 | 63.7 | − 213.1 | − 53.3 |

[1]Includes urban, industrial, highway, noncommercial forest, water, rights-of-way, and other land uses.

Table 3.—*Number of live trees in the bottomland hardwood forest type for the most recent surveys by species and diameter class, Delta Region*[1]

| Species | Total | Diameter class | | |
|---|---|---|---|---|
| | | 5.0–10.9 | 11.0–18.9 | 19.0 and larger |
| | *Thousand trees* | | | |
| Softwoods: | | | | |
| Cypress | 76,529 | 42,955 | 27,816 | 5,758 |
| Pines | 59 | ..... | 59 | ..... |
| Eastern redcedar | 341 | 341 | ..... | ..... |
| Hardwoods: | | | | |
| White oaks: | | | | |
| Overcup | 27,045 | 16,652 | 7,795 | 2,598 |
| Swamp chestnut | 1,714 | 1,149 | 362 | 203 |
| White | 1,256 | 669 | 532 | 55 |
| Post | 1,044 | 684 | 338 | 22 |
| Delta post | 826 | 648 | 154 | 24 |
| Bur | 143 | 112 | 31 | ..... |
| Red oaks: | | | | |
| Willow | 24,829 | 17,297 | 5,854 | 1,678 |
| Nuttall | 19,452 | 11,790 | 5,217 | 2,445 |
| Water | 15,721 | 9,849 | 3,862 | 2,010 |
| Cherrybark | 3,348 | 1,442 | 1,180 | 726 |
| Laurel | 1,240 | 934 | 181 | 125 |
| Shumard | 930 | 631 | 236 | 63 |
| Southern red | 325 | 143 | 151 | 31 |
| Pin | 240 | ..... | 197 | 43 |
| Other red | 295 | 177 | 104 | 14 |
| Gums: | | | | |
| Sweetgum | 58,641 | 40,003 | 16,132 | 2,506 |
| Water tupelo | 84,378 | 52,567 | 30,163 | 1,649 |
| Black tupelo | 1,110 | 294 | 738 | 78 |
| Swamp tupelo | 411 | 238 | 157 | 16 |
| Hackberry | 69,959 | 49,147 | 18,479 | 2,334 |
| Maples: | | | | |
| Red maple | 39,996 | 34,088 | 5,227 | 681 |
| Boxelder | 20,606 | 16,153 | 4,265 | 188 |
| Silver maple | 446 | 204 | 233 | 9 |
| Other maples | 121 | 72 | 44 | 5 |

Table 3.—*Number of live trees in the bottomland hardwood forest type for the most recent surveys by species and diameter class, Delta Region*[1]*—Continued*

| Species | Total | Diameter class 5.0–10.9 | 11.0–18.9 | 19.0 and larger |
|---|---|---|---|---|
| | *Thousand trees* | | | |
| Ashes: | | | | |
| White ash | 2,335 | 1,724 | 440 | 172 |
| Other ashes | 58,736 | 41,769 | 14,309 | 2,659 |
| Hickories: | | | | |
| Water hickory | 32,854 | 23,728 | 7,449 | 1,678 |
| Pecan | 5,281 | 2,965 | 1,766 | 550 |
| Other hickories | 8,411 | 6,560 | 1,681 | 169 |
| Elms: | | | | |
| American | 28,117 | 20,922 | 6,138 | 1,058 |
| Winged | 5,095 | 4,758 | 300 | 37 |
| Cedar | 4,349 | 1,588 | 2,306 | 455 |
| Slippery | 4,052 | 3,109 | 803 | 140 |
| Other elms | 17 | ..... | 17 | ..... |
| Willow | 38,427 | 21,901 | 12,892 | 3,634 |
| Cottonwood | 14,850 | 9,196 | 4,002 | 1,653 |
| Sycamore | 9,085 | 6,114 | 2,361 | 609 |
| Locusts | 7,849 | 5,424 | 2,047 | 378 |
| Persimmon | 9,220 | 8,390 | 805 | 25 |
| River birch | 112 | ..... | 89 | 23 |
| Other commercial hardwoods | 3,597 | 3,219 | 331 | 46 |
| Noncommercial hardwoods | 16,200 | 15,212 | 774 | 214 |
| All species | 699,591 | 474,815 | 188,015 | 36,762 |

[1]Rows and columns may not sum to totals due to rounding.

Table 4.—*Number of live trees per acre in the Delta by State, year of survey, and diameter class*

| State | Year of survey | Diameter class 1.0–4.9 | 5.0–10.9 | 11.0–18.9 | 19.0 and larger |
|---|---|---|---|---|---|
| | | *Trees per 100 acres* | | | |
| Arkansas | | | | | |
| | 1950 | 33,749 | 7,002 | 2,414 | 375 |
| | 1959 | 43,366 | 7,534 | 2,238 | 393 |
| | 1969 | 41,598 | 8,636 | 2,489 | 515 |
| | 1978 | 40,071 | 8,709 | 2,700 | 552 |
| Louisiana | | | | | |
| | 1954 | 41,667 | 8,395 | 2,776 | 545 |
| | 1964 | 32,901 | 8,467 | 3,023 | 529 |
| | 1974 | 40,441 | 9,534 | 3,363 | 573 |
| | 1984 | 36,188 | 10,056 | 4,098 | 710 |
| Mississippi | | | | | |
| | 1947 | 55,557 | 3,880 | 1,477 | 317 |
| | 1957 | 50,994 | 6,065 | 1,852 | 400 |
| | 1967 | 49,624 | 8,451 | 2,204 | 382 |
| | 1977 | 42,806 | 9,147 | 2,646 | 537 |

some increase in cottonwood and sycamore (table 5). Species typical of poorly-drained, heavy clay soils, such as Nuttall oak, overcup oak, and water hickory, are declining. Species typical of soils with abundant moisture, such as cypress, are increasing. Harvest of valued oaks and conversion of land to sycamore and cottonwood plantations have also contributed to species composition shifts.

Partial harvesting and lack of timber management, combined with natural aging of these stands, have left many stands with cull (rough and rotten) trees. Bottomland hardwoods with more than 40 percent stocking[1] of cull trees comprise 1.5 million acres, or 29 percent of the total area (table 6).

Trends in the Louisiana Delta between 1974 and 1984 suggest that more bottomland hardwood stands are becoming stocked with cull trees. Bottomland hardwoods with more than 40 percent stocking of cull trees represent 1.1 million acres in 1984, up from 0.8 million acres in 1974. Stands with more than 40 percent stocking of cull trees represent 37 percent of the bottomland hardwoods in 1984, compared with 24 percent in 1974.

## ACCESS AND OWNERSHIP

Remote—roadless or relatively inaccessible—areas are highly valued because they supply scarce habitat for wildlife such as black bears in need of seclusion, and they provide opportunities for viewing wildlife in primitive or semi-primitive settings. Approximately 50 percent of the Delta's bottomland hardwoods is 1/2 mile or more from all-weather or potentially truck-operable unimproved roads; most are concentrated in the Atchafalaya Basin of Louisiana. Nationwide trends suggest a decline in remote areas, particularly on private land (Cordell and Hendee 1982).

Half the Delta's bottomland hardwoods are within 1/2 mile of roads; some other areas can be reached by boat. However, most of this timberland is in private ownership, so public use may be restricted. In the Louisiana Delta, more than half the land leased or owned for hunting is controlled by private hunting clubs (Louisiana Department of Culture, Recreation, and Tourism (DCRT), Baton Rouge, unpublished survey data for 1984).

Most of the public bottomland hardwoods are managed for multiple uses, with wildlife production being a primary use. Public ownership of bottomland hardwoods rose from 0.4 million acres for the 1957–64 period to 0.7 million acres for the 1977–84 period. The proportion of public bottomland increased from 6 percent to 13 percent of the total bottomland hardwood acres between periods. Private ownership declined from 6.4 million acres to 4.5 million acres during the same period, principally due to conversion of forests to agricultural uses. Despite the decline, private landowners, principally nonindustrial private landowners, continue to control the majority of bottomland hardwoods in every Delta state (table 7).

Based on past trends, increases in public ownership of bottomland hardwood stands are likely. The proportion of public holdings will increase markedly as private bottomland hardwood acreage is cleared for agriculture and other uses. Despite these shifts, however, private landowners will likely continue to be the major landowner group in the Delta.

## DISCUSSION AND CONCLUSIONS

The Delta's timberland area has continued to decline but at a slower rate. Ten years ago, 26 percent of the land area was timberland (Sternitzke 1976). By 1984, timberland had declined to 23 percent of all land.

A simple straight line extension of trends from the past decade (fig. 2) suggests a loss of about 70,000 acres per year. For the entire lower Mississippi Valley, other projections vary between 60,000 (MacDonald and others 1979) and 120,000 (Forsythe 1985) acres per year. Based on survey data, the loss is equivalent to 190 acres per day, with other studies suggesting between 160 and 330 acres per day.

The acreage that will remain bottomland hardwoods in the Delta is uncertain. Modification of existing policies and programs, additional legislation that limits land clearing and drainage, and public acquisition and conversion of flood-prone, marginal agricultural lands to bottomland hardwoods have been suggested to reduce or reverse the projected decline in acreage (Forsythe 1985).

Noncommodity values of bottomland hardwoods—aesthetics, woodland wildlife habitat, and opportunities for primitive and semi-primitive recreation—are considerable. Hunting leases are believed to be an important source of income for landowners in this area. These values will continue to be lost with every acre of forest land cleared for other uses. Promotion of nonconsumptive uses of these areas through tourist development and purchase of easements might be used to offset agricultural opportunities foregone.

Many of the existing bottomland hardwood stands in the Delta contain an abundance of older, large diameter growing-stock trees suited to large-bodied birds (eagles) and cull trees suited to woodpecker species (pileated woodpeckers) and other cavity-nesting wildlife. Stands stocked with these trees, however, have limited potential for further timber production.

[1]Stocking is a measure of stand density that is used to relate the number of trees occupying a site to a specified standard. A stand with 100 percent stocking of growing-stock trees is fully stocked for timber purposes.

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Table 5.—*Number of live trees in bottomland hardwood forest type in the Louisiana Delta by species and diameter class, 1974, 1984, and change since 1974*[1]

| Species | Change in totals since 1974 | Diameter class, 1984 | | | | Diameter class, 1974 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Total | 5.0–10.9 | 11.0–18.9 | 19.0 and larger | Total | 5.0–10.9 | 11.0–18.9 | 19.0 and larger |
| | | *Thousand trees* | | | | | | | |
| Softwoods: | | | | | | | | | |
| Cypress | + 9,969 | 70,618 | 39,587 | 26,093 | 4,938 | 60,649 | 35,252 | 21,606 | 3,791 |
| Pines | − 105 | 59 | ..... | 59 | ..... | 164 | 75 | 56 | 33 |
| Hardwoods: | | | | | | | | | |
| White oaks: | | | | | | | | | |
| Overcup | − 3,200 | 9,796 | 5,682 | 3,120 | 994 | 12,996 | 7,991 | 3,679 | 1,326 |
| White | − 372 | 246 | 125 | 121 | ..... | 618 | 507 | 84 | 27 |
| Swamp chestnut and chinkapin | − 252 | 824 | 635 | 57 | 132 | 610 | 430 | 88 | 92 |
| Post and Delta post | − 327 | 581 | 414 | 160 | 7 | 908 | 665 | 148 | 95 |
| Red oaks: | | | | | | | | | |
| Water | + 131 | 10,020 | 5,864 | 2,658 | 1,498 | 9,889 | 6,514 | 2,273 | 1,102 |
| Willow | − 2,179 | 7,720 | 5,553 | 1,694 | 473 | 9,899 | 7,230 | 2,070 | 599 |
| Nuttall | − 3,608 | 7,249 | 4,021 | 2,053 | 1,175 | 10,857 | 6,730 | 3,165 | 962 |
| Laurel | + 75 | 1,205 | 899 | 181 | 125 | 1,129 | 765 | 260 | 104 |
| Cherrybark | + 173 | 1,180 | 574 | 385 | 221 | 1,007 | 515 | 390 | 102 |
| Other red | + 2 | 160 | 99 | 48 | 13 | 158 | 44 | 82 | 32 |
| Gums: | | | | | | | | | |
| Sweetgum | − 7,199 | 33,154 | 21,429 | 10,020 | 1,705 | 40,353 | 29,771 | 9,526 | 1,056 |
| Other gums | + 227 | 77,085 | 47,050 | 28,677 | 1,358 | 76,858 | 49,623 | 24,624 | 2,611 |
| Maples: | | | | | | | | | |
| Red maple | + 3,782 | 37,789 | 32,395 | 4,822 | 572 | 34,007 | 29,189 | 4,243 | 575 |
| Other maples | + 1,049 | 9,208 | 7,245 | 1,905 | 58 | 8,159 | 7,185 | 883 | 91 |
| Ashes: | | | | | | | | | |
| White ash | + 119 | 1,017 | 744 | 221 | 53 | 898 | 464 | 359 | 75 |
| Other ashes | − 7,588 | 38,776 | 27,479 | 9,529 | 1,769 | 46,364 | 34,787 | 9,745 | 1,832 |
| Hackberry | − 1,900 | 30,465 | 20,448 | 8,859 | 1,159 | 32,545 | 21,841 | 9,638 | 1,066 |
| Willow | − 349 | 28,235 | 16,421 | 9,073 | 2,741 | 28,584 | 16,864 | 9,661 | 2,059 |
| Elms: | | | | | | | | | |
| American elm | − 725 | 15,294 | 11,331 | 3,474 | 490 | 16,019 | 12,091 | 3,407 | 521 |
| Cedar elm | − 999 | 2,403 | 999 | 1,241 | 163 | 3,402 | 1,607 | 1,542 | 253 |
| Slippery elm | + 755 | 2,090 | 1,517 | 455 | 118 | 1,335 | 714 | 465 | 156 |
| Winged elm | − 1,382 | 788 | 667 | 121 | ..... | 2,170 | 2,052 | 106 | 12 |
| Hickories: | | | | | | | | | |
| Water hickory | − 5,569 | 16,956 | 12,612 | 3,639 | 706 | 22,525 | 16,343 | 5,312 | 870 |
| Sweet pecan | − 1,619 | 2,054 | 891 | 905 | 258 | 3,673 | 2,682 | 769 | 222 |
| Other hickories | + 386 | 1,739 | 1,317 | 412 | 9 | 1,353 | 902 | 439 | 12 |
| Cottonwood | + 2,108 | 6,991 | 4,426 | 2,080 | 486 | 4,883 | 3,110 | 1,367 | 406 |
| Sycamore | + 1,862 | 5,502 | 3,938 | 1,311 | 253 | 3,640 | 3,095 | 375 | 170 |
| Locusts | − 1,911 | 4,130 | 2,771 | 1,100 | 259 | 6,041 | 3,951 | 1,704 | 386 |
| Persimmon | − 227 | 2,609 | 2,549 | 41 | 19 | 2,836 | 2,566 | 270 | ..... |
| Other commercial hardwoods | − 247 | 1,248 | 985 | 222 | 39 | 1,495 | 1,365 | 108 | 22 |
| Water elm[2] | | 4,972 | 4,735 | 237 | ..... | | | | |
| Live oak[2] | − 3,647 | 1,086 | 865 | 92 | 129 | 13,027 | 12,382 | 527 | 118 |
| Other noncommercial hardwoods | | 3,321 | 3,218 | 103 | ..... | | | | |
| All species | −22,501 | 436,568 | 289,483 | 125,166 | 21,920 | 459,051 | 319,302 | 118,971 | 20,778 |

[1]Rows and columns may not sum to totals due to rounding.
[2]Noncommercial species.

For the Delta to achieve a greater balance between sustainable timber resources along with wildlife resources, management strategies will be needed to deal effectively with existing cull trees.

Given the past trends and current condition of bottomland hardwood stands, intensive management on remaining timberland, the majority being in nonindustrial private ownership, is likely to be limited. Cull trees are occupying more of the stands, leaving less room for growing-stock trees. Hard mast producers important for wildlife—oaks and hickories—are declining. Assurance of future multiple benefits will require more active management to regenerate and retain hardwood stands with tree species that serve timber, wildlife, and other needs.

Table 6.—*Area of bottomland hardwoods in the Delta by percent growing-stock trees and cull trees for the most recent surveys*[1]

| Growing-stock trees | Cull trees (percent stocking) | | | | |
|---|---|---|---|---|---|
| | Total | 0–20 | 21–40 | 41–60 | Over 60 |
| *Percent stocking* | *Thousand acres* | | | | |
| 60 or less | 1,890.2 | 375.6 | 622.0 | 520.6 | 327.0 |
| 61–100 | 2,351.5 | 696.2 | 1,140.4 | 426.6 | 88.4 |
| 101–140 | 804.3 | 472.7 | 261.8 | 69.8 | .... |
| over 140 | 70.4 | 70.4 | ..... | ..... | .... |
| Total | 5,116.4 | 1,615.0 | 2,024.2 | 1,016.9 | 460.4 |

[1]Rows and columns may not sum to totals due to rounding.

Table 7.—*Area of bottomland hardwoods in the Delta by State and ownership class for the most recent surveys*[1]

| State (year of survey) | Total | Ownership class | | |
|---|---|---|---|---|
| | | Public | Forest industry | Other private |
| | | *Thousand acres* | | |
| Arkansas (1978) | 1,264.1 | 227.7 | 207.2 | 829.3 |
| Louisiana (1984) | 2,897.8 | 296.4 | 299.1 | 2,302.2 |
| Mississippi (1977) | 954.5 | 109.5 | 204.7 | 640.3 |
| Total | 5,116.4 | 633.7 | 711.0 | 3,771.8 |

[1]Rows and columns may not sum to totals due to rounding.

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A summary of component trends in the forests of the lower Mississippi River Valley suggests bottomland hardwood acreage is declining by 190 acres per day and is shifting toward maturity in species and stand structure. Private landowners continue to control the remaining forests, despite recent acquisitions by public agencies.

**Keywords:** timberland, bottomland hardwoods, stand structure, species composition, cull occupancy.

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# Incidence and Impact of Damage to Louisiana's Timber, 1985

Paul A. Mistretta and Carl V. Bylin

## SUMMARY

The Southern Forest Experiment Station in Starkville, MS, periodically inventories and evaluates forest resources in Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, Texas, and Puerto Rico. Survey data were collected in 1983, 1984, and 1985 by the Forest Inventory and Analysis work unit of the Southern Forest Experiment Station as part of the fifth inventory of Louisiana's forests. Considerably more information was gathered for this inventory than in previous data collections, making possible the publication of this specialized report summarizing information on agents that damage timber in Louisiana's forests.

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## INTRODUCTION

During the periodic inventory of Louisiana's forests conducted from 1983 to 1985 by the Southern Forest Experiment Station, Starkville, MS, damage to live trees was noted, and, where possible, a cause or damaging agent was specified. Since a plot is visited only once during the survey, and that visit can be at any time of the year, only agents that produce durable symptoms or signs of damage were reported.

Because the data reported here were gathered by people trained and experienced in forest inventory, not entomology or pathology, qualified people from Region 8, State and Private Forestry, Forest Pest Management, trained the field crews to use a damage-identification handbook (Anderson and others 1980) before doing the field survey assessment. Specimen kits and forms were provided to crew members for submission of damage samples they might be unable to identify in the field. During the survey, field checks were made to ensure the accuracy and consistency of the recording and collection of the data.

Agents selected for inclusion in the survey were required to be (1) easily identifiable, (2) present throughout the year, and (3) present on trees at least 1 inch in diameter at breast height (d.b.h.). Therefore, small trees with problems such as brown spot and trees of all sizes with damage such as defoliation (which is not apparent in winter) are not included in this report.

There are several reasons why this report does not completely assess the incidence and impact of all damage observed in Louisiana's forests. First, damage is caused by a wide variety of agents; some are easily recognized, others are more difficult to identify. The data presented here for damaging agents that are easily identified and persistent, such as stem and branch rust, are reliable. The data for damaging agents that are more difficult to recognize, such as root rot, are underestimated.

Second, certain types of damage can only be observed during part of the year; these have not been included in this survey in a dedicated category. For example, defoliation caused by insects is only evident at the time of year during which trees normally have leaves and insects are active. Since survey crews work throughout the year, defoliation data could not be consistently collected and was recorded only as "other insect" when observed during the summer.

Third, some damaging agents cause trees to die rapidly; these trees were recorded in a mortality (not a damage) category. For instance, trees attacked by bark beetles in summer tend to die rapidly. If the survey crew found a tree with evidence of bark beetle activity, it was probably already dead and would have been tallied as such. Thus many bark beetle damaged trees would not be recorded in the "Bark Beetle" damage category.

And finally, only a single "most damaging" agent was reported per tree. Thus there is no information presented concerning complexes such as a disease/insect/environment interaction.

Data presented in this Resource Bulletin were compiled as a separate computer run. Similarity will be seen among acres of forest types, timber removals, and mortality by species when compared to data presented in "Forest statistics for Louisiana parishes in 1984" (USDA FS 1986). Differences in accumulation, definition changes, and rounding will account for the differences in numbers presented.

In spite of these problems, the survey gives a good picture of the relative incidence of the preselected, easily recognized damage types (or agents) that persist throughout the year.

## SAMPLING PROCEDURE

The sampling procedure used for this inventory was designed to provide reliable statistics on a statewide basis or for large groups of parishes. It also accurately summarizes species having a relatively large total volume in the State. However, errors associated with the sampling of relatively minor species, like cottonwood or pond cypress, exceed those for such major species as loblolly pine.

The data on forest acreage and timber volume in this report were obtained by a sampling method involving a forest-nonforest classification on aerial pho-

Paul A. Mistretta is a supervisory plant pathologist with the Southern Region, Forest Pest Management, USDA Forest Service, Pineville, LA. Carl V. Bylin is a forester with the Southern Forest Experiment Station, USDA Forest Service, Starkville, MS.

tographs linked to ground measurements of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. In Louisiana, 116,831 photographic classifications were made, and 6,657 ground locations were visited. The initial estimates of forest area obtained from aerial photographs were adjusted on the basis of the ground check.

A cluster of five variable-radius plots was installed at each ground sample location. Each sample tree on the variable-radius plots represented 7.50 square feet of basal area per acre. Trees less than 5.0 inches in diameter were tallied on fixed-radius plots around the plot centers. Trees on a subsample of plots were measured in detail to obtain data for calculating timber volumes.

Plots established during the fourth survey of Louisiana (Murphy 1975) were remeasured during this (the fifth) survey to determine the elements of change, and these remeasured plots are the basis for estimating growth, mortality, removals, and changes in land use.

## COMPUTATION METHODS

Limits on tree size classes were: saplings, 1.0 to 4.9 inches d.b.h.; softwood poletimber, 5.0 to 8.9 inches d.b.h.; hardwood poletimber, 5.0 to 10.9 inches d.b.h.; softwood sawtimber ≥9.0 inches d.b.h.; and hardwood sawtimber ≥11.0 inches d.b.h. Volume equations based on measurements of live standing trees in Louisiana were used to compute merchantable and total cubic volume.

Percentage of species volume and total volume loss attributed to all agents damaging a species were subsequently computed. Data on percent incidence of damage do not imply total economic loss; only a part of the volume in cull would fail to qualify for some commercial use, such as firewood. Cull includes loss due to crooks, limbs, decay, missing wood, sweep, large forks, and sections of the bole too rough to be used as pulpwood or sawtimber. The volume loss was determined by totaling the volume of cull by species.

Mortality could not be attributed to specific damaging agents because it was often impossible to determine the cause of death. In many cases, a tree that had been tallied in the fourth survey 10 years ago (Murphy 1975) was simply missing. It was possible, however, to determine volume loss due to mortality for each tree species on each plot. Accumulating total volume per dead tree by tree species resulted in the total volume loss for poletimber and sawtimber by tree species. Economic impact was determined by multiplying the total wood fiber and quality loss for each tree species by the stumpage value per unit. These dollar estimates were taken from an average of a sample of timber sales in Louisiana in 1984.

## INCIDENCE OF DAMAGING AGENTS

Louisiana has 13,872,600 acres of commercial forest, and most of the acreage is in the loblolly pine, oak-hickory, loblolly pine-hardwood, sweetgum-oak, and cypress-tupelo forest types. Table 1 shows the acreage in the various size classes and forest types. The remaining tables in this report show how much of the timber resource was damaged and the agents responsible for the damage. The term "damage" is used to refer to any injury the tree has suffered. A damaged tree is still living.

Tables 2 and 3 show percentage of trees damaged, by size class and tree species. Overall, hardwoods had more damage than softwoods. Red oaks, gums, and white oaks were severely affected. Hardwood sawtimber and saplings showed about the same incidence of damage, which exceeded incidence to poletimber, but more softwood saplings were damaged than poletimber or sawtimber. Loblolly, shortleaf, and slash pine are the most abundant softwood species in Louisiana. For all three species, 25 percent or more of both poletimber- and sawtimber-sized trees were damaged, with damage to saplings being greater than the damage observed in the older age classes (except for slash pine poletimber).

The percentage of saplings damaged was generally higher for hardwoods (66 percent average) than softwoods (45 percent average). In most hardwood species, 65 to 85 percent of the saplings were damaged (table 3). The most frequently damaged saplings were hard maples, with blackgum, soft maple, beech, hickory, and ash all having more than 80 percent of their seedlings damaged. Hardwood poletimber was damaged less often than saplings or sawtimber. The most frequently damaged hardwood sawtimber trees were hard and soft maples, black walnut, beech, ash, and basswood. More than 75 percent of the sawtimber trees in these species were damaged.

Table 4 shows the incidence of damage to softwood by species. The most common causes of softwood damage were suppression and stagnation in saplings and weather, logging, and form in the older age categories. Fusiform rust, caused by *Cronartium quercuum* (Berk.) Miy. & Shirai f. sp. *fusiforme*, was the most common disease-caused damage. Loblolly and slash pines, in all size classes, were affected by this disease. In these tree species, fusiform rust was the most damaging agent and was associated with high volume losses. Fusiform rust was recorded only if the gall was on or within 12 inches of the main stem. Economically, branch galls farther than 12 inches from the bole have minimal impact on the tree. If galls farther out on limbs had been recorded, the reported occurrence of fusiform rust would have been much higher.

Bark beetles are considered to be the most serious insect pests of pines in the Southeast. The reported

incidence of bark beetle damage on live softwood is very low. The main reason for this discrepancy is that this survey only reported damage to living trees; bark beetles usually kill trees, and the dead trees were recorded under the classification "mortality."

The reported incidence of damage due to insects on both hardwoods and softwoods was very low. Insect damage, however, was significantly underestimated due to the difficulty in diagnosing and evaluating many types of insect-caused damage.

Table 5 shows the incidence of damage to hardwoods by species. The most common problems associated with damage observed in hardwoods were weather caused problems, suppression and stagnation, logging, and tree form. Form damage (from various causes including genetics, environmental damage, and pest damage) had the highest incidence in mature trees. Saplings had a high incidence of damage resulting from suppression and stagnation.

## MORTALITY, CULL, AND ECONOMIC IMPACT

Annual mortality of softwood poletimber is shown in table 6. Softwood poletimber mortality was about 25 percent of the annual volume of softwood poletimber removals, and hardwood poletimber mortality was 40 percent of the annual volume of hardwood poletimber removals. Softwood sawtimber mortality was approximately 9 percent of the annual softwood sawtimber removals, while hardwood sawtimber mortality was almost 33 percent of the annual hardwood sawtimber removals. The mortality figures shown in table 6 are the total for the resource and do not reflect any discounting for dead trees that represented no economic loss. Table 6 also shows the estimated volumes of cull for the major species groups in Louisiana. Annual removal figures are given to place the volume losses in perspective.

The volume lost due to cull in hardwoods was 150 percent of that in softwoods, but, considering their relative population sizes, the cull of softwood sawtimber is about two times as great as that for hardwood sawtimber. Proportioned by population, annual accumulated cull of hardwood poletimber was about 345 percent of that of softwoods, while the values for mortality in poletimber show much greater damage in both softwood categories.

The economic impact of damaging agents is greatest in softwood sawtimber, which showed an annual loss of about $42 million (table 7). The annual wood volume loss for hardwood sawtimber, although more than 123 percent of the softwood volume, is valued at about $17.9 million because hardwood stumpage value is considerably less than that of softwood. In poletimber, the $3.6 million softwood loss was 227 percent that of hardwoods despite the fact that hardwood volume loss was 170 percent of softwood loss.

Overall, 70.2 percent of all economic impact occurs in softwoods, and about 92.0 percent of the total economic impact was in sawtimber-size trees.

## DAMAGING AGENTS, GROWTH DEFECTS, AND SYMPTOMS

The definitions used in the field manual prepared by Anderson, and others (1980) are presented below under the subheadings Diseases, Growth Defects, Natural Phenomena, Animals and Birds, Insects, and Human Activities.

### Diseases

*Fusiform Rust.*—Common host species: slash, loblolly, and shortleaf pines. Symptoms and signs: spindle-shaped galls formed on the stem or on branches within 12 inches (30.5 cm) of the bole. Older galls appear as cankers with sunken, rotten centers encircled by a callus ridge. Witches' brooms are common at galls. Bright orange spores are produced on the galls in the spring.

### Growth Defects

*Branch Stubs.*—Common host species: all tree species. Symptoms and signs: branch holes or stubs greater than 4.0 inches in diameter on stems of trees 5.0 inches d.b.h. and larger or greater than 1.0 inch in diameter on stems of trees 1.0 to 4.9 inches d.b.h.

*Basal Defect.*—Common host species: all tree species. Symptoms and signs: butt swelling, curls, V-shaped stump sprouts, frost seams, and low stubs below 4.5 feet.

*Dieback.*—Common host species: all hardwoods. Symptoms and signs: branch tips die back. Initially, only a few branches are affected, but in advanced stages, entire branches die, with the possibility of tree mortality. Dieback is frequently associated with stress caused by an unfavorable environment.

*Suppression and Stagnation.*—Common host species: all tree species. Symptoms and signs: poor form and small crowns. Suppressed trees are overtopped and receive indirect sunlight. Stagnated trees have thin foliage despite receiving some direct sunlight. Stagnation is usually associated with poor growing sites or overstocking.

*Form (damaging).*—Common host species: all tree species. Symptoms and signs: all trees 5.0 inches d.b.h. and larger that are deformed due to unknown causes.

*Hardwood Cankers.*—Common host species: all hardwoods. Symptoms and signs: dead, sunken area formed on the stem, frequently with annual callus ridges around the dead area.

*Littleleaf Disease.*—Common host species: shortleaf and loblolly pines, but shortleaf is more susceptible. Symptoms and signs: short, yellow needles; reduced shoot growth; and large crops of undersized cones. Affected trees occur in groups. Littleleaf disease usually occurs in trees growing on heavy clay soils with poor internal drainage.

*Pitch Canker.*—Common host species: most southern pines, but primarily slash, loblolly, and shortleaf. Symptoms and signs: flagging at branch ends, pitch flow from affected area, slight swelling on affected stems and twigs, crooks in main stem, and wilting of current candles.

*Root Rots.*—Common host species: all tree species. Symptoms and signs: thin, tufted crowns. Diseased trees are frequently found in groups containing dead or windthrown trees. Conks (fruiting bodies) of various fungi may be present on or near the bases of diseased trees. Root rots are more frequent in trees of reduced vigor, thinned stands, and in trees with butt or root injury. Trees with root rots are often subsequently attacked by bark beetles.

*Other Diseases.*—Common host species: all tree species. Symptoms and signs: all damage caused by diseases not identified in separate categories (e.g., red heart of pine, brown spot, and leaf diseases). Trees showing degrade caused by diseases are included in this category.

### Natural Phenomena

*Fire.*—Common host species: all tree species. Symptoms and signs: fire scars, usually at the base of the stem and widespread in the stand. The scars are usually on the uphill side of the tree, and signs of charring are generally present on the stem.

*Flooding.*—Common host species: all tree species. Symptoms and signs: yellowing and curling downward of leaves, premature leaf fall, branch and top dieback, tree mortality, and high water and silt marks on tree boles.

*Lightning.*—Common host species: all tree species. Symptoms and signs: bark stripping or cracking, with damage running from the strike point to the ground in a straight or spiral line. Often the foliage will fade due to root damage or top breakage. Bark beetles often invade struck trees.

*Weather.*—Common host species: all tree species. Symptoms and signs: windthrow, ice, frost cracks, broken tops, broken branches, marginal leaf burn, and winter burn.

### Animals and Birds

*Beaver.*—Common host species: all tree species. Symptoms and signs: toothmarks and removal of bark from the bole of the tree. Trees are often flooded by water impoundment, which can lead to flood damage and death.

*Other Animals.*—Common host species: all tree species. Symptoms and signs: branches clipped off or broken, bark removed, holes in the stem, and tears and toothmarks in the wood.

*Sapsucker.*—Common host species: all tree species. Symptoms and signs: horizontal rows of small holes that may encircle the tree's bole. Bark below the holes is usually streaked or stained by oozing sap.

### Insects

*Bark Beetles.*—Common host species: all pines. Symptoms and signs: pitch tubes, bark beetle galleries on the inner bark surface and the surface of the sapwood, exit holes, and loose bark. Streaks caused by blue stain fungi are often evident in the sapwood. Foliage of infested trees gradually yellows and then turns red.

*Hardwood Borers.*—Common host species: all hardwoods. Symptoms and signs: initially a dark sap spot on the bark surface, often mixed with frass. Eventually, coarse boring particles appear in bark cracks and crevices beneath the point of attack. Old damage appears as knobby overgrowths or scars on the bark surface.

*Terminal Shoot and Stem Borers.*—Common host species: all tree species. Symptoms and signs: fresh attacks show boring dust and frass at the entrance holes, which are most often located at the base of leaf petioles and buds. Resin globs may be present at points of attack. Dieback results from larval tunneling within terminal shoots and branches. Foliage on the shoots turns yellow, red, and finally brown.

*Other Insects.*—Common host species: all tree species. Symptoms and signs: all damage caused by insects not identified in separate categories. Includes hardwood defoliators (e.g., orangestriped oakworm and fall cankerworm), pine defoliators (e.g., redheaded pine sawfly), and pine weevils.

### Human Activities

*People.*—Common host species: all tree species. Symptoms and signs: initials in bark, nails in tree, burns from lanterns, stripped bark, wire around stem, and ax marks.

*Logging and Related.*—Common host species: all tree species. Symptoms and signs: logging scars on the stem that will form callus ridges within 1 to 2 years after wounding. Trees with logging damage are scattered in stands and show no charring. Broken limbs and scars on the stem near the crown will occur from the felling of other trees. Skid trails, stumps, or other evidence of logging will be present.

## FOREST SURVEY TERMS

The following terms used by the Forest Inventory Analysis group are presented to clarify some of the constraints placed on the data collected and on subsequent data analysis.

*Acceptable Trees.*—Growing-stock trees of commercial species that meet specified standards of size and quality.

*Annual Accumulated Cull.*—Total cull divided by the intrasurvey period.

*Basal Area.*—The area in square feet of the cross section at breast height of a single tree or of all the trees in a stand, usually expressed in square feet per acre.

*Cull Volume.*—Total volume loss due to crooks, limbs, decay, missing wood, sweep, and large forks, plus the volume in sections of the bole too rough to be used as sawtimber or pulpwood.

*D.b.h.* (Diameter at breast height).—Tree diameter in inches, outside bark, measured at 4.5 feet above ground.

*Diameter Class.*—A classification of trees based on diameter outside bark at d.b.h. Two-inch diameter classes are commonly used in forest surveys, with the even numbered inch as the approximate midpoint for a class. For example, the 6-inch class includes trees 5.0 through 6.9 inches d.b.h.

*Growing-Stock Trees.*—Live trees of commercial species qualifying as acceptable trees; excludes rough, rotten, and dead trees.

*Hardwoods.*—Dicotyledonous trees, usually broad-leaved and deciduous.

*Incidence.*—Percentage of susceptible trees affected by a damaging agent.

*Intrasurvey Period.*—The number of years between the current survey and the past survey.

*Mortality.*—Number or sound-wood volume of live trees that died from natural causes during the intrasurvey period.

*Poletimber Trees.*—Live trees of commercial species, at least 5.0 inches d.b.h. but smaller than sawtimber size, of good form and vigor.

*Rough and Rotten Trees.*—Live trees that are currently or potentially unmerchantable for saw logs because of defect, rot, or species.

*Saplings.*—Live trees 1.0 to 4.9 inches d.b.h. and of good form and vigor.

*Saw log.*—A log meeting minimum standards of diameter, length, and defect, including logs at least 8 feet long, sound and straight, with a minimum diameter inside bark of 6.0 inches for softwoods and 8.0 inches for hardwoods.

*Sawtimber Trees.*—Live trees of commercial species containing at least one 12-foot saw log, or two 8-foot or longer noncontiguous saw logs, with at least one-third of the gross board-foot volume between the 1-foot stump and minimum saw log top being sound. Softwoods must be at least 9.0 inches in d.b.h. and hardwoods at least 11.0 inches in d.b.h.

*Sawtimber Volume.*—Net volume of the saw log portion of live sawtimber in board feet using the International rule, 1/4-inch kerf.

*Softwoods.*—Coniferous trees, usually evergreen, having needles or scalelike leaves.

*Species Groups.*—Sets of tree species pooled together for standard reporting.

- Hard maples: Florida, black, and sugar maples.
- Soft maples: Boxelder, red, and silver maples.
- Select red oaks: Cherrybark, northern red, and shumard oaks.
- Other red oaks: Scarlet, southern red, laurel, water, willow, black, and others not in select red oaks.
- Select white oaks: White, swamp white, bur, and swamp chestnut oaks.
- Other white oaks: Overcup, chestnut, post, live, and others not in select white oaks.
- Other eastern hardwoods: Buckeye, birch, hackberry, dogwood, persimmon, honeylocust, silverbell, holly, butternut, cucumber-tree, mulberry, scrub oaks, willow, and other commercial species.

*Stand-size Class.*—A classification of forest land based on the size class of growing-stock trees on the area.

*Sawtimber stands:* Stands at least 16.7 percent stocked with growing-stock trees, with half or more of the total stocking in sawtimber or poletimber trees, and sawtimber stocking at least equal to poletimber stocking.

*Poletimber stands:* Stands at least 16.7 percent stocked with growing-stock trees, with half or more of this stocking in poletimber and sawtimber trees, and poletimber stocking exceeding that of sawtimber.

*Sapling-seedling stands:* Stands at least 16.7 percent stocked with growing-stock trees, of which more than half of the stocking is saplings and seedlings.

*Susceptible Trees.*—All living trees. Includes acceptable trees, as well as rough and rotten trees.

*Timber Removals.*—The net volume of growing-stock trees removed from the inventory by harvesting or cultural operations such as timber-stand improvement, land clearing, or changes in land use.

*Timberland.*—Forest land producing or capable of producing crops of industrial wood and not withdrawn from timber utilization. Previously called commercial forest land.

*TSI.*—Timber stand improvement.

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Table 1.—*Area of commercial forest land in Louisiana, by stand-size class and forest type*

| Forest classification | Thousands of acres[1] |
|---|---|
| Stand-size class: | |
| Understock | 449.0 |
| Sapling-seedling | 2,525.8 |
| Poletimber | 2,718.9 |
| Sawtimber | 8,178.9 |
| All stand sizes | 13,872.6 |
| Forest type: | |
| Longleaf pine | 313.2 |
| Slash pine | 619.9 |
| Loblolly pine | 3699.2 |
| Shortleaf pine | 304.2 |
| Spruce pine | 29.8 |
| Eastern redcedar-hardwood | 5.2 |
| Longleaf pine-scrub oak | 29.2 |
| Shortleaf pine-oak | 213.4 |
| Loblolly pine-hardwood | 1560.0 |
| Slash pine-hardwood | 75.7 |
| Other oak-pine | 29.8 |
| Oak-hickory | 248.4 |
| Post oak-black oak-bear oak | 27.4 |
| White oak-red oak-hickory | 1720.5 |
| White oak | 5.5 |
| Southern scrub oak | 11.1 |
| Sweetgum-yellow poplar | 73.9 |
| Mixed hardwoods | 83.8 |
| Oak-gum-cypress | 805.4 |
| Swamp chestnut oak-cherrybark oak | 18.7 |
| Sweetgum-Nuttal oak-willow oak | 1152.7 |
| Sugarberry-American elm-green ash | 737.3 |
| Overcup oak-water hickory | 391.6 |
| Cypress-tupelo | 1085.5 |
| Sweetbay-swamp tupelo-red maple | 186.3 |
| Cottonwood | 60.1 |
| Willow | 277.5 |
| Sycamore-pecan-American elm | 74.7 |
| Nonstocked | 32.3 |
| All types | 13,872.6 |

[1]Totals may not add due to rounding.

Table 2.—*Percentage of susceptible softwood trees damaged, by species and tree size, in Louisiana*

| Host | Total population | Trees damaged | | | Volume of cull[1] | |
|---|---|---|---|---|---|---|
| | | Sapling | Poletimber | Sawtimber | Poletimber | Sawtimber |
| | *Thousands* | ---------- | *Percent* | ---------- | *Mft³* | *Mfbm* |
| Southern redcedar | 605.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eastern redcedar | 8,899.4 | 38.9 | 54.8 | 100.0 | 0.0 | 218.0 |
| Shortleaf pine | 210,440.5 | 56.0 | 36.9 | 28.0 | 1,782.9 | 39,945.5 |
| Slash pine | 180,980.2 | 50.5 | 53.5 | 39.4 | 3,116.4 | 12,949.1 |
| Spruce pine | 8,666.7 | 100.0 | 69.2 | 45.7 | 0.0 | 12,612.2 |
| Longleaf pine | 67,521.4 | 36.6 | 18.9 | 23.9 | 182.9 | 10,542.3 |
| Pond pine | 47.7 | 0.0 | 0.0 | 100.0 | 0.0 | 477.2 |
| Loblolly pine | 1,551,547.9 | 43.6 | 34.1 | 30.6 | 11,590.9 | 285,441.7 |
| Baldcypress | 147,122.9 | 43.4 | 22.1 | 29.7 | 1,073.3 | 64,774.8 |
| Pondcypress | 10,727.4 | 49.1 | 17.2 | 39.9 | 0.0 | 0.0 |
| Totals[2] | 2,186,559.1 | 45.0 | 35.8 | 30.8 | 17,746.4 | 426,960.9 |

[1]Cull due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of bole that are too rough to be utilized as pulpwood or as sawtimber.

[2]Totals may not add due to rounding.

Table 3.—*Percentage of susceptible hardwood trees damaged, by species and tree size, in Louisiana*

| Host | Total population | Trees damaged | | | Volume of cull[1] | |
|---|---|---|---|---|---|---|
| | | Sapling | Poletimber | Sawtimber | Poletimber | Sawtimber |
| | *Thousands* | ---------- | *Percent* | ---------- | *Mft³* | *Mfbm* |
| Select white oaks[2] | 154,350.9 | 68.6 | 40.8 | 61.3 | 3,054.7 | 21,648.5 |
| Select red oaks[3] | 71,299.4 | 66.3 | 31.5 | 54.3 | 1,052.6 | 20,459.7 |
| Other white oaks | 193,258.9 | 75.7 | 49.7 | 63.5 | 7,791.8 | 48,680.7 |
| Other red oaks | 704,545.9 | 65.8 | 43.8 | 58.4 | 19,303.8 | 156,115.5 |
| Hickories | 240,944.7 | 84.9 | 63.0 | 68.6 | 8,427.6 | 57,765.2 |
| Hard maple | 14,673.8 | 100.0 | 100.0 | 100.0 | 0.0 | 0.0 |
| Soft maple | 639,451.9 | 86.0 | 74.5 | 89.4 | 17,944.9 | 16,736.4 |
| Beech | 25,134.1 | 81.5 | 54.7 | 76.1 | 1,734.9 | 23,621.2 |
| Sweetgum | 1,064,409.0 | 70.0 | 51.2 | 66.5 | 25,253.7 | 115,162.2 |
| Blackgum/tupelo | 514,960.6 | 83.5 | 60.9 | 68.0 | 24,080.3 | 68,579.0 |
| Ash | 290,596.8 | 81.4 | 67.3 | 79.1 | 14,820.8 | 32,931.3 |
| Cottonwood | 11,479.9 | 67.0 | 49.7 | 53.7 | 172.9 | 12,464.4 |
| Basswood | 4,786.2 | 71.0 | 100.0 | 79.5 | 255.4 | 0.0 |
| Yellow-poplar | 6,070.3 | 65.4 | 45.9 | 63.9 | 103.3 | 4,191.9 |
| Black walnut | 317.1 | 0.0 | 100.0 | 100.0 | 0.0 | 0.0 |
| Other eastern hardwoods | 1,933,134.0 | 49.2 | 50.4 | 70.6 | 50,248.8 | 109,486.6 |
| Noncommercial | 21,018.5 | 8.3 | 0.0 | 0.0 | 3,038.6 | 0.0 |
| Totals[4] | 5,890,431.9 | 66.4 | 52.8 | 66.8 | 177,284.1 | 687,843.0 |

[1]Damage due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of bole that are too rough to be utilized as pulpwood or as sawtimber.

[2]White, swamp white, swamp chestnut, and bur oaks.

[3]Cherrybark, northern red, and shumard oaks.

[4]Totals may not add due to rounding.

Table 4.—*Approximate number of trees and percentage of damage/defect, by softwood species and damaging agent or defect, in Louisiana*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Southern redcedar | 535,000 | 0 | 70,000 |
| | | No Damage Reported | |
| Eastern redcedar | 7,913,000 | 879,000 | 107,000 |
| Diseases—other | 0.0 | 0.0 | 8.5 |
| Fire | 0.0 | 16.0 | 0.0 |
| Inhibiting vegetation | 6.3 | 0.0 | 0.0 |
| Logging—damage | 19.6 | 0.0 | 81.3 |
| Form (live tree only) | 13.0 | 38.9 | 10.2 |
| Shortleaf pine | 116,738,000 | 53,632,000 | 40,070,000 |
| Insects—other | 0.5 | 0.0 | 0.0 |
| Bark beetles | 0.0 | 0.4 | 0.0 |
| Terminal, shoot, & stem borers | 1.0 | 0.0 | 0.0 |
| Diseases—other | 0.0 | 0.9 | 1.2 |
| Fusiform rust | 1.9 | 0.7 | 1.2 |
| Branch stubs | 0.0 | 0.4 | 0.2 |
| Basal defects | 0.0 | 0.0 | 0.6 |
| Dieback | 0.5 | 0.5 | 0.6 |
| Fire | 0.4 | 0.0 | 0.0 |
| Sapsucker | 0.0 | 0.0 | 0.6 |
| Weather—other | 1.4 | 3.1 | 2.3 |
| Flooding | 0.0 | 0.0 | 0.1 |
| Lightning | 0.0 | 0.0 | 0.1 |
| Ice | 0.0 | 0.0 | 0.1 |
| Suppression, stagnation | 29.2 | 7.0 | 0.2 |
| Inhibiting vegetation | 1.3 | 2.0 | 0.4 |
| People | 0.4 | 0.0 | 0.5 |
| Logging—damage | 4.6 | 5.5 | 4.0 |
| Form (live tree only) | 14.8 | 16.4 | 15.9 |
| Slash pine | 84,958,000 | 66,936,000 | 29,085,000 |
| Bark beetles | 0.6 | 0.2 | 0.3 |
| Terminal, shoot, & stem borers | 0.0 | 0.2 | 0.0 |
| Diseases—other | 0.0 | 0.0 | 0.2 |
| Fusiform rust | 30.3 | 46.0 | 32.3 |
| Basal defects | 0.0 | 0.2 | 0.3 |
| Fire | 0.0 | 0.4 | 0.5 |
| Weather—other | 1.2 | 1.5 | 0.6 |
| Flooding | 0.6 | 1.2 | 0.4 |
| Lightning | 0.0 | 0.0 | 0.2 |
| Ice | 1.9 | 0.3 | 0.0 |
| Suppression, stagnation | 14.6 | 0.4 | 0.0 |
| Logging—damage | 1.3 | 1.9 | 2.3 |
| Form (live tree only) | 0.0 | 1.3 | 2.3 |
| Spruce pine | 3,868,000 | 1,322,000 | 3,476,000 |
| Diseases—other | 0.0 | 0.0 | 2.2 |
| Fusiform rust | 0.0 | 0.0 | 2.8 |
| Branch stubs | 0.0 | 0.0 | 6.4 |
| Basal defects | 15.5 | 0.0 | 1.5 |
| Beaver | 0.0 | 0.0 | 1.5 |
| Weather—other | 0.0 | 12.4 | 1.9 |
| Suppression, stagnation | 29.3 | 0.0 | 0.0 |
| Inhibiting vegetation | 0.0 | 8.3 | 0.0 |
| Logging—damage | 0.0 | 0.0 | 2.9 |
| Form (live tree only) | 55.1 | 48.5 | 26.6 |

Table 4.—*Approximate number of trees and percentage of damage/defect, by softwood species and damaging agent or defect, in Louisiana—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Longleaf pine | 34,106,000 | 16,292,000 | 17,124,000 |
| Bark beetles | 1.5 | 0.0 | 0.4 |
| Terminal, shoot, & stem borers | 1.5 | 0.0 | 1.1 |
| Diseases—other | 0.0 | 0.0 | 0.1 |
| Branch stubs | 0.0 | 0.0 | 2.2 |
| Basal defects | 0.0 | 0.0 | 1.8 |
| Fire | 2.8 | 0.7 | 0.3 |
| Sapsucker | 0.0 | 0.0 | 0.9 |
| Weather—other | 0.0 | 0.7 | 3.2 |
| Lightning | 0.0 | 0.0 | 0.6 |
| Ice | 4.5 | 2.6 | 0.1 |
| Suppression, stagnation | 6.0 | 0.0 | 0.0 |
| People | 0.0 | 0.0 | 1.6 |
| Logging—damage | 3.0 | 2.0 | 2.4 |
| Offsite tree | 0.0 | 0.0 | 0.2 |
| Form (live tree only) | 15.6 | 7.8 | 7.7 |
| Loblolly pine | 1,046,706,000 | 294,704,000 | 210,138,000 |
| Insects—other | 0.2 | 0.0 | 0.0 |
| Bark beetles | 0.0 | 0.6 | 0.3 |
| Terminal, shoot, & stem borers | 1.2 | 1.0 | 0.1 |
| Diseases—other | 0.1 | 0.4 | 1.3 |
| Fusiform rust | 10.8 | 9.8 | 7.0 |
| Branch stubs | 0.0 | 0.0 | 1.0 |
| Basal defects | 0.1 | 0.1 | 0.6 |
| Dieback | 0.1 | 0.4 | 0.2 |
| Fire | 0.3 | 0.2 | 0.5 |
| Animals | 0.1 | 0.0 | 0.0 |
| Sapsucker | 0.0 | 0.0 | 0.7 |
| Weather— other | 1.5 | 2.7 | 2.0 |
| Lightning | 0.0 | 0.0 | 0.2 |
| Tornado | 0.2 | 0.2 | 0.0 |
| Ice | 0.9 | 0.7 | 0.1 |
| Suppression, stagnation | 15.6 | 2.6 | 0.1 |
| Inhibiting vegetation | 2.3 | 2.8 | 1.2 |
| People | 0.3 | 0.1 | 0.2 |
| Logging—damage | 1.5 | 2.2 | 2.7 |
| Form (live tree only) | 8.3 | 10.5 | 12.3 |
| Baldcypress | 60,074,000 | 34,929,000 | 52,120,000 |
| Insects—other | 1.7 | 0.0 | 0.2 |
| Diseases—other | 1.0 | 1.9 | 6.3 |
| Branch stubs | 0.0 | 0.4 | 1.0 |
| Basal defects | 0.0 | 0.0 | 0.9 |
| Dieback | 0.0 | 0.4 | 0.9 |
| Sapsucker | 0.0 | 0.0 | 0.1 |
| Weather—other | 2.9 | 1.8 | 2.2 |
| Lightning | 0.0 | 0.0 | 0.2 |
| Tornado | 0.0 | 0.0 | 0.1 |
| Suppression, stagnation | 18.8 | 1.6 | 0.3 |
| Inhibiting vegetation | 6.2 | 1.6 | 0.3 |
| Logging—damage | 0.0 | 0.0 | 0.2 |
| Form (live tree only) | 12.9 | 14.5 | 16.9 |
| Pondcypress | 7,157,000 | 3,047,000 | 523,000 |
| Diseases—other | 0.0 | 0.0 | 12.1 |
| Dieback | 0.0 | 0.0 | 6.0 |
| Weather—other | 0.0 | 0.0 | 19.9 |
| Suppression, stagnation | 42.1 | 0.0 | 0.0 |
| Inhibiting vegetation | 7.0 | 0.0 | 0.0 |
| Form (live tree only) | 0.0 | 17.2 | 2.0 |

Table 5.—*Approximate number of trees and percentage of damage/defect, by hardwood species and damaging agent or defect, in Louisiana*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Select white oaks | 117,749,000 | 25,820,000 | 10,782,000 |
| Hardwood borers | 0.0 | 0.0 | 0.7 |
| Terminal, shoot, & stem borers | 1.4 | 0.0 | 0.0 |
| Diseases—other | 0.9 | 1.0 | 9.1 |
| Hardwood cankers | 0.5 | 0.6 | 0.6 |
| Branch stubs | 0.4 | 0.4 | 3.3 |
| Basal defects | 0.5 | 1.8 | 1.7 |
| Dieback | 0.4 | 1.1 | 0.3 |
| Fire | 1.4 | 0.0 | 0.8 |
| Sapsucker | 0.0 | 0.0 | 1.7 |
| Weather—other | 1.8 | 0.0 | 1.5 |
| Flooding | 0.5 | 0.0 | 0.1 |
| Lightning | 0.0 | 0.0 | 0.6 |
| Ice | 0.5 | 0.0 | 0.0 |
| Suppression, stagnation | 15.6 | 0.7 | 0.0 |
| Inhibiting vegetation | 4.7 | 2.6 | 0.5 |
| People | 1.8 | 0.7 | 0.7 |
| Logging—damage | 8.5 | 9.0 | 5.1 |
| Form (live tree only) | 29.7 | 22.9 | 34.6 |
| Select red oaks | 51,350,000 | 13,101,000 | 6,849,000 |
| Hardwood borers | 0.9 | 0.0 | 0.9 |
| Terminal, shoot, & stem borers | 1.0 | 1.5 | 0.0 |
| Diseases—other | 2.1 | 0.6 | 11.1 |
| Hardwood cankers | 0.0 | 0.0 | 0.7 |
| Branch stubs | 0.0 | 0.0 | 4.0 |
| Basal defects | 0.0 | 1.0 | 2.8 |
| Fire | 1.0 | 0.7 | 0.3 |
| Weather—other | 6.9 | 1.5 | 0.7 |
| Flooding | 1.0 | 0.0 | 0.1 |
| Lightning | 0.0 | 0.0 | 0.2 |
| Tornado | 0.0 | 0.0 | 0.1 |
| Suppression, stagnation | 17.4 | 2.2 | 0.0 |
| Inhibiting vegetation | 8.9 | 3.7 | 1.6 |
| People | 1.7 | 0.0 | 0.2 |
| Logging—damage | 8.1 | 8.7 | 2.1 |
| Form (live tree only) | 17.3 | 11.7 | 29.5 |
| Other white oaks | 141,203,000 | 35,125,000 | 16,931,000 |
| Hardwood borers | 0.0 | 0.0 | 0.4 |
| Terminal, shoot, & stem borers | 0.7 | 0.0 | 0.0 |
| Diseases—other | 2.5 | 5.8 | 13.6 |
| Hardwood cankers | 0.0 | 0.0 | 0.2 |
| Branch stubs | 0.4 | 1.4 | 6.1 |
| Basal defects | 1.1 | 1.8 | 1.0 |
| Dieback | 0.0 | 1.0 | 0.9 |
| Fire | 2.9 | 0.0 | 0.3 |
| Sapsucker | 0.0 | 0.0 | 0.8 |
| Weather—other | 2.6 | 2.4 | 2.1 |
| Flooding | 0.0 | 0.0 | 0.1 |
| Tornado | 0.0 | 0.0 | 0.2 |
| Suppression, stagnation | 20.3 | 0.8 | 0.0 |
| Inhibiting vegetation | 3.2 | 1.8 | 0.4 |
| People | 0.7 | 2.0 | 0.6 |
| Logging—damage | 8.6 | 6.2 | 2.2 |
| Form (live tree only) | 32.7 | 26.6 | 34.6 |

Table 5.—*Approximate number of trees and percentage of damage/defect, by hardwood species and damaging agent or defect, in Louisiana—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Other red oaks | 541,384,000 | 111,392,000 | 51,770,000 |
| Hardwood borers | 0.2 | 0.3 | 1.4 |
| Bark beetles | 0.0 | 0.0 | 0.1 |
| Terminal, shoot, & stem borers | 1.0 | 0.1 | 0.0 |
| Diseases—other | 0.6 | 3.6 | 14.0 |
| Root rots | 0.0 | 0.0 | 0.2 |
| Hardwood cankers | 0.1 | 0.7 | 0.6 |
| Branch stubs | 0.6 | 0.6 | 4.3 |
| Basal defects | 0.3 | 1.7 | 1.1 |
| Dieback | 0.1 | 1.1 | 0.3 |
| Fire | 1.3 | 1.4 | 0.5 |
| Sapsucker | 0.0 | 0.0 | 0.6 |
| Weather—other | 2.6 | 2.0 | 1.4 |
| Flooding | 0.0 | 0.7 | 0.3 |
| Lightning | 0.0 | 0.1 | 0.2 |
| Tornado | 0.0 | 0.0 | 0.1 |
| Ice | 0.0 | 0.2 | 0.2 |
| Suppression, stagnation | 14.3 | 0.5 | 0.1 |
| Inhibiting vegetation | 5.3 | 2.3 | 0.8 |
| People | 0.3 | 0.3 | 0.5 |
| Logging—damage | 3.6 | 4.2 | 1.5 |
| Form (live tree only) | 35.7 | 24.5 | 30.3 |
| Hickories | 182,990,000 | 41,068,000 | 16,887,000 |
| Insects—other | 0.0 | 0.0 | 0.3 |
| Hardwood borers | 0.6 | 0.0 | 0.1 |
| Terminal, shoot, & stem borers | 5.4 | 0.0 | 0.0 |
| Diseases—other | 0.9 | 4.4 | 10.2 |
| Root rots | 0.0 | 0.3 | 0.3 |
| Hardwood cankers | 0.0 | 0.2 | 0.2 |
| Branch stubs | 0.3 | 0.7 | 3.3 |
| Basal defects | 0.3 | 2.2 | 1.8 |
| Dieback | 0.3 | 2.4 | 2.1 |
| Fire | 0.3 | 0.0 | 0.5 |
| Animals | 0.0 | 0.6 | 0.0 |
| Sapsucker | 0.0 | 0.0 | 3.6 |
| Weather—other | 1.7 | 2.5 | 1.9 |
| Flooding | 0.3 | 0.0 | 0.1 |
| Suppression, stagnation | 22.7 | 4.1 | 0.1 |
| Inhibiting vegetation | 8.6 | 7.3 | 1.4 |
| People | 0.3 | 1.1 | 0.4 |
| Logging— damage | 7.0 | 1.1 | 1.9 |
| Form (live tree only) | 36.2 | 36.1 | 40.4 |
| Hard maple | 13,863,000 | 592,000 | 219,000 |
| Sapsucker | 0.0 | 0.0 | 25.3 |
| Weather—other | 0.0 | 0.0 | 25.7 |
| Suppression, stagnation | 27.2 | 0.0 | 0.0 |
| Inhibiting vegetation | 4.2 | 0.0 | 0.0 |
| Logging—damage | 18.5 | 0.0 | 0.0 |
| Form (live tree only) | 50.2 | 100.0 | 49.1 |
| Soft maple | 577,437,000 | 54,263,000 | 7,751,000 |
| Terminal, shoot, & stem borers | 1.2 | 0.0 | 0.0 |
| Diseases—other | 1.4 | 8.0 | 33.3 |
| Hardwood cankers | 0.3 | 1.5 | 2.6 |
| Branch stubs | 0.5 | 1.2 | 1.0 |
| Basal defects | 0.8 | 2.0 | 2.7 |

Table 5.—*Approximate number of trees and percentage of damage/defect, by hardwood species and damaging agent or defect, in Louisiana—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Soft maple—Continued | | | |
| Dieback | 0.8 | 3.4 | 2.6 |
| Fire | 0.7 | 0.0 | 0.0 |
| Weather—other | 3.6 | 4.5 | 3.5 |
| Flooding | 0.3 | 1.3 | 1.6 |
| Tornado | 0.0 | 0.1 | 0.0 |
| Suppression, stagnation | 15.4 | 0.9 | 0.0 |
| Inhibiting vegetation | 4.0 | 0.9 | 0.0 |
| People | 0.4 | 0.3 | 0.0 |
| Logging—damage | 5.0 | 3.1 | 1.6 |
| Form (live tree only) | 51.6 | 47.5 | 40.6 |
| Beech | 14,740,000 | 3,975,000 | 6,419,000 |
| Diseases—other | 0.0 | 2.0 | 37.0 |
| Branch stubs | 0.0 | 0.0 | 1.4 |
| Basal defects | 0.0 | 2.3 | 1.6 |
| Dieback | 3.8 | 0.0 | 0.8 |
| Fire | 5.8 | 1.8 | 0.0 |
| Beaver | 0.0 | 0.0 | 0.5 |
| Weather—other | 3.4 | 0.0 | 1.7 |
| Flooding | 0.0 | 0.0 | 1.3 |
| Suppression, stagnation | 21.6 | 2.1 | 0.0 |
| Inhibiting vegetation | 10.4 | 0.0 | 0.0 |
| People | 0.0 | 6.8 | 1.4 |
| Logging—damage | 7.3 | 18.4 | 0.8 |
| Form (live tree only) | 29.2 | 21.3 | 29.7 |
| Sweetgum | 873,696,000 | 152,026,000 | 38,687,000 |
| Insects—other | 0.1 | 0.0 | 0.0 |
| Terminal, shoot, & stem borers | 0.6 | 0.0 | 0.0 |
| Diseases—other | 0.8 | 3.7 | 11.8 |
| Hardwood cankers | 0.0 | 0.1 | 0.1 |
| Branch stubs | 0.1 | 0.3 | 2.1 |
| Basal defects | 1.1 | 1.9 | 2.5 |
| Dieback | 0.2 | 1.9 | 1.5 |
| Fire | 1.3 | 0.8 | 0.5 |
| Beaver | 0.1 | 0.5 | 1.2 |
| Sapsucker | 0.0 | 0.0 | 0.3 |
| Weather—other | 1.5 | 2.7 | 2.2 |
| Flooding | 0.0 | 0.3 | 0.6 |
| Lightning | 0.0 | 0.0 | 0.1 |
| Tornado | 0.1 | 0.3 | 0.3 |
| Ice | 0.3 | 0.0 | 0.0 |
| Suppression, stagnation | 20.0 | 2.7 | 0.1 |
| Inhibiting vegetation | 11.5 | 4.8 | 3.3 |
| People | 0.3 | 0.2 | 0.6 |
| Logging—damage | 4.2 | 4.9 | 3.2 |
| Form (live tree only) | 28.1 | 25.9 | 36.5 |
| Blackgum-tupelo | 365,061,000 | 105,072,000 | 44,828,000 |
| Hardwood borers | 0.1 | 0.0 | 0.1 |
| Terminal, shoot, & stem borers | 3.1 | 0.2 | 0.0 |
| Diseases—other | 1.5 | 5.4 | 10.7 |
| Root rots | 0.0 | 0.1 | 0.0 |
| Hardwood cankers | 0.0 | 0.4 | 0.5 |
| Branch stubs | 0.6 | 0.7 | 1.1 |
| Basal defects | 0.5 | 1.8 | 1.0 |
| Dieback | 1.2 | 9.1 | 12.5 |

Table 5.—*Approximate number of trees and percentage of damage/defect, by hardwood species and damaging agent or defect, in Louisiana—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Blackgum-tupelo—Continued | | | |
| Fire | 1.3 | 0.2 | 0.0 |
| Beaver | 0.2 | 0.2 | 0.0 |
| Weather—other | 3.9 | 3.6 | 2.9 |
| Flooding | 0.0 | 0.6 | 0.1 |
| Lightning | 0.0 | 0.0 | 0.1 |
| Tornado | 0.0 | 0.1 | 0.5 |
| Suppression, stagnation | 25.8 | 2.2 | 0.0 |
| Inhibiting vegetation | 3.3 | 1.3 | 0.3 |
| People | 0.8 | 1.2 | 0.3 |
| Logging–damage | 7.1 | 1.1 | 0.1 |
| Offsite tree | 0.4 | 1.3 | 0.3 |
| Form (live tree only) | 33.5 | 31.6 | 37.6 |
| Ash | 232,894,000 | 42,645,000 | 15,059,000 |
| Hardwood borers | 0.0 | 0.0 | 0.3 |
| Terminal, shoot, & stem borers | 1.6 | 0.0 | 0.0 |
| Diseases—other | 1.9 | 9.4 | 18.3 |
| Hardwood cankers | 0.4 | 0.2 | 0.4 |
| Branch stubs | 0.5 | 0.0 | 1.1 |
| Basal defects | 0.0 | 1.7 | 0.8 |
| Dieback | 2.8 | 7.1 | 3.6 |
| Fire | 0.4 | 0.0 | 1.3 |
| Beaver | 0.5 | 0.4 | 0.0 |
| Sapsucker | 0.0 | 0.2 | 1.6 |
| Weather—other | 4.5 | 2.1 | 4.4 |
| Flooding | 0.9 | 2.7 | 0.9 |
| Suppression, stagnation | 18.9 | 0.0 | 0.0 |
| Inhibiting vegetation | 5.6 | 1.8 | 0.3 |
| People | 0.2 | 0.0 | 0.0 |
| Logging—damage | 1.6 | 1.4 | 1.2 |
| Form (live tree only) | 41.7 | 40.4 | 45.0 |
| Cottonwood | 3,292,000 | 5,394,000 | 2,794,000 |
| Diseases—other | 0.0 | 12.9 | 4.6 |
| Branch stubs | 0.0 | 0.0 | 8.6 |
| Basal defects | 0.0 | 0.0 | 0.3 |
| Weather—other | 16.3 | 7.6 | 4.4 |
| Suppression, stagnation | 17.1 | 0.0 | 0.0 |
| Inhibiting vegetation | 0.0 | 5.8 | 0.0 |
| Form (live tree only) | 33.6 | 23.5 | 35.8 |
| Basswood | 3,642,000 | 934,000 | 210,000 |
| Diseases—other | 0.0 | 0.0 | 49.8 |
| Weather—other | 14.1 | 0.0 | 0.0 |
| Suppression, stagnation | 14.8 | 0.0 | 0.0 |
| People | 0.0 | 8.4 | 0.0 |
| Logging—damage | 28.3 | 0.0 | 0.0 |
| Form (live tree only) | 13.8 | 91.6 | 29.7 |
| Yellow-popular | 3,369,000 | 1,273,000 | 1,429,000 |
| Diseases—other | 0.0 | 0.0 | 22.9 |
| Branch stubs | 0.0 | 0.0 | 1.0 |
| Basal defects | 0.0 | 0.0 | 4.5 |
| Sapsucker | 0.0 | 0.0 | 6.1 |
| Weather—other | 15.7 | 7.5 | 2.9 |
| Suppression, stagnation | 15.8 | 0.0 | 0.0 |
| Inhibiting vegetation | 15.8 | 0.0 | 0.0 |
| Logging—damage | 0.0 | 16.3 | 0.0 |
| Form (live tree only) | 18.0 | 22.1 | 26.5 |

Table 5.—*Approximate number of trees and percentage of damage/defect, by hardwood species and damaging agent or defect, in Louisiana—Continued*

| Agent | Incidence of damage | | |
|---|---|---|---|
| | Saplings | Poletimber | Sawtimber |
| Black walnut | 0 | 304,000 | 14,000 |
| Diseases—other | 0.0 | 100.0 | 100.0 |
| Other eastern hardwoods | 1,705,991,000 | 180,509,000 | 46,634,000 |
| Insects—other | 0.0 | 0.2 | 0.1 |
| Hardwood borers | 0.0 | 0.0 | 0.1 |
| Terminal, shoot, & stem borers | 0.2 | 0.0 | 0.0 |
| Diseases—other | 0.5 | 5.1 | 15.4 |
| Root rots | 0.0 | 0.2 | 0.0 |
| Hardwood cankers | 0.1 | 0.0 | 0.1 |
| Branch stubs | 0.2 | 0.9 | 3.4 |
| Basal defects | 0.1 | 0.5 | 0.6 |
| Dieback | 0.2 | 1.6 | 1.7 |
| Fire | 0.5 | 0.2 | 0.5 |
| Beaver | 0.1 | 0.0 | 0.1 |
| Sapsucker | 0.0 | 0.4 | 0.8 |
| Weather—other | 1.8 | 2.1 | 3.0 |
| Flooding | 0.1 | 0.4 | 0.7 |
| Ice | 0.0 | 0.1 | 0.4 |
| Suppression, stagnation | 10.1 | 1.1 | 0.1 |
| Inhibiting vegetation | 4.5 | 2.7 | 0.6 |
| People | 0.3 | 0.3 | 0.5 |
| Logging—damage | 3.3 | 2.3 | 0.7 |
| Form (live tree only) | 27.0 | 32.4 | 41.9 |
| Noncommercial | 7,238,000 | 13,517,000 | 263,000 |
| Suppression, stagnation | 8.3 | 0.0 | 0.0 |

Table 6.—*Poletimber and sawtimber removals and wood losses in Louisiana*

| Species | Annual timber removals | | Volume loss | | | |
|---|---|---|---|---|---|---|
| | | | Annual mortality | | Annual accumulated cull[1] | |
| | Poletimber | Sawtimber | Poletimber | Sawtimber | Poletimber | Sawtimber |
| | *Mft³* | *Mfbm* | *Mft³* | *Mfbm* | *Mft³* | *Mfbm* |
| Softwoods | | | | | | |
| Eastern redcedar | 0.0 | 0.0 | 0.0 | 581.4 | 0.0 | 21.1 |
| Shortleaf pine | 12,915.3 | 351,817.5 | 3,999.0 | 47,747.0 | 178.0 | 3,929.6 |
| Slash pine | 28,455.4 | 93,504.3 | 6,612.2 | 16,334.2 | 325.3 | 1,320.1 |
| Spruce pine | 462.7 | 16,407.5 | 344.1 | 968.6 | 0.0 | 1,361.8 |
| Longleaf pine | 3,055.8 | 129,213.1 | 0.0 | 14,529.9 | 18.0 | 1,024.3 |
| Pond pine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 47.7 |
| Loblolly pine | 50,887.1 | 1,775,069.5 | 12,751.7 | 143,486.0 | 1,142.2 | 28,362.1 |
| Baldcypress | 413.2 | 24,881.5 | 173.3 | 3,473.9 | 104.6 | 6,022.8 |
| Pondcypress | 0.0 | 795.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Totals | 96,189.5 | 2,391,688.8 | 23,880.2 | 227,120.8 | 1,768.1 | 42,089.6 |
| Hardwoods | | | | | | |
| Select white oaks | 3,761.4 | 53,292.3 | 525.7 | 4,854.1 | 300.6 | 2,108.1 |
| Select red oaks | 1,178.4 | 23,472.6 | 840.4 | 6,752.0 | 98.8 | 2,005.1 |
| Other white oaks | 6,366.8 | 79,406.6 | 1,779.5 | 21,032.5 | 755.5 | 4,676.4 |
| Other red oaks | 18,516.4 | 225,512.5 | 4,804.7 | 39,982.2 | 1,877.3 | 14,887.9 |
| Hickories | 4,764.1 | 76,506.6 | 1,168.1 | 21,067.3 | 790.3 | 5,496.3 |
| Soft maple | 937.6 | 2,371.8 | 1,633.8 | 6,589.1 | 1,660.1 | 1,503.7 |
| Beech | 203.5 | 21,713.2 | 82.4 | 2,373.9 | 172.2 | 2,277.4 |
| Sweetgum | 14,891.5 | 148,351.9 | 4,136.1 | 42,368.7 | 2,427.7 | 11,122.1 |
| Blackgum/tupelo | 2,779.0 | 41,762.6 | 3,254.1 | 36,090.2 | 2,366.9 | 6,538.2 |
| Ash | 2,889.9 | 31,172.9 | 1,792.7 | 10,997.9 | 1,357.9 | 3,076.1 |
| Cottonwood | 501.2 | 12,374.1 | 544.0 | 6,214.6 | 16.7 | 1,209.9 |
| Basswood | 127.1 | 803.1 | 0.0 | 0.0 | 26.0 | 0.0 |
| Yellow-poplar | 0.0 | 2,435.3 | 0.0 | 0.0 | 11.4 | 437.6 |
| Other eastern hardwoods | 9,078.2 | 89,358.9 | 5,889.0 | 67,607.9 | 4,853.7 | 10,264.5 |
| Noncommercial | 0.0 | 0.0 | 0.0 | 0.0 | 297.4 | 0.0 |
| Totals | 65,995.0 | 808,534.3 | 26,450.5 | 265,930.6 | 17,012.4 | 65,603.3 |

[1]Cull due to crooks, limbs, decay, missing wood, sweep, large forks, and volume in sections of bole that is too rough to be utilized as pulpwood or sawtimber.

Table 7.—*Annual economic impact of damage on the timber resource in Louisiana*

| Species | Annual volume wood fiber loss | Stumpage value per unit | Annual loss |
|---|---|---|---|
| | | *Dollars* | |
| Softwoods | | | |
| Poletimber (*Mft³*) | 25,648.3 | 141.90 | 3,639,496.45 |
| Sawtimber (*Mfbm*) | 269,210.3 | 157.00 | 42,266,022.75 |
| Hardwoods | | | |
| Poletimber (*Mft³*) | 43,463.0 | 36.90 | 1,603,783.00 |
| Sawtimber (*Mfbm*) | 331,533.9 | 54.00 | 17,902,831.68 |
| All species | | | |
| Poletimber (*Mft³*) | 69,111.3 | | 5,243,279.45 |
| Sawtimber (*Mfbm*) | 600,744.3 | | 60,168,854.43 |
| Total | | | 65,412,133.88 |

# Appendix II—Scientific Names of Tree Species Mentioned

| Common Name | Scientific Name |
|---|---|
| American elm | *Ulmus americana* L. |
| Ash | *Fraxinus* spp. |
| Baldcypress | *Taxodium distichum* (L.) Rich. |
| Basswood | *Tilia americana* L. |
| Bear oak | *Quercus ilicifolia* Wangenh. |
| Beech | *Fagus grandifolia* Ehrh. |
| Birch | *Betula* spp. |
| Black maple | *Acer nigrum* Michx. f. |
| Black oak | *Quercus velutina* Lam. |
| Black walnut | *Juglans nigra* L. |
| Blackgum | *Nyssa sylvatica* Marsh. |
| Boxelder | *Acer negundo* L. |
| Buckeye | *Aesculus* spp. |
| Bur oak | *Quercus macrocarpa* Michx. |
| Cherrybark oak | *Quercus falcata* var. *pagodifolia* Ell. |
| Chestnut oak | *Quercus prinus* L. |
| Cottonwood | *Populus deltoides* Bartr. ex Marsh. |
| Cypress | *Cupressus* spp. |
| Dogwood | *Cornus florida* L. |
| Eastern redcedar | *Juniperus virginiana* L. |
| Florida maple | *Acerbarbatum* Michx. |
| Green ash | *Fraxinus pennsylvanica* Marsh. |
| Gums | see.. Tupelo |
| Hackberry | *Celtis occidentalis* L. |
| Hickories | *Carya* spp. |
| Honeylocust | *Gleditsia triacanthos* L. |
| Laurel oak | *Quercus laurifolia* Michx. |
| Live oak | *Quercus virginiana* Mill. |
| Loblolly pine | *Pinus taeda* L. |
| Longleaf pine | *Pinus palustris* Mill. |
| Maples (soft or hard) | *Acer* spp. |
| Northern red oak | *Quercus rubra* L. |
| Nuttall oak | *Quercus nuttallii* Palmer |
| Oaks (red, white, or scrub) | *Quercus* spp. |
| Overcup oak | *Quercus lyrata* Walt. |
| Pecan | *Carya illinoensis* (Wangenh.) K. Koch. |
| Persimmon | *Diospyros virginiana* L. |
| Pines | *Pinus* spp. |
| Pond pine | *Pinus serotina* Michx. |
| Pondcypress | *Taxodium distichum* var. *nutans* (Ait.) Sweet |
| Post oak | *Quercus stellata* Wangenh. |
| Red maple | *Acer rubrum* L. |
| Scarlet oak | *Quercus coccinea* Muenchh. |
| Scrub oak | see.. Oaks (red, white or scrub) |
| Shortleaf pine | *Pinus echinata* Mill. |
| Shumard oak | *Quercus shumardii* Buckl. |
| Silver maple | *Acer saccharinum* L. |
| Slash pine | *Pinus elliottii* Engelm. |
| Southern red oak | *Quercus falcata* Michx. |

# Appendix II—Scientific Names of Tree Species Mentioned—Continued

| Common Name | Scientific Name |
|---|---|
| Southern redcedar | *Juniperus silicola* (Small) Bailey |
| Spruce pine | *Pinus glabra* Walt. |
| Sugar maple | *Acer saccharum* Marsh. |
| Sugarberry | *Celtis laevigata* Willd. |
| Swamp chestnut oak | *Quercus michauxii* Nutt. |
| Swamp white oak | *Quercus bicolor* Willd. |
| Sweetbay | *Magnolia virginiana* L. |
| Sweetgum | *Liquidambar styraciflua* L. |
| Sycamore | *Platanus occidentalis* L. |
| Tupelo | *Nyssa* spp. |
| Water hickory | *Carya aquatica* (Michx. f.) Nutt. |
| Water oak | *Quercus nigra* L. |
| Water tupelo | *Nyssa aquatica* L. |
| White oak | *Quercus alba* L. |
| Willow | *Salix* spp. |
| Willow oak | *Quercus phellos* L. |
| Yellow-poplar | *Liriodendron tulipifera* L. |

Mistretta, Paul A.; Bylin, Carl. Incidence and Impact of Damage to Louisiana's Timber, 1985. Resour. Bull. SO-117. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station: 1987. 19 p.

Data collected during a 1983-85 survey of Louisiana's forests are tabulated and discussed.

**Additional keywords:** forest resources, injury, insect, disease, survey.

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# Forest Statistics for East Texas Counties, 1968

## SUMMARY

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...Arkansas, Louisiana,
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## ACKNOWLEDGMENTS

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# Forest Statistics for East Texas Counties - 1986

Linda L. Lang and Daniel F. Bertelson

## INTRODUCTION

These tables were derived from data obtained during a 1986 inventory of east Texas (fig. 1). The data on forest acreage and timber volume were secured by a systematic sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurement of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. At each forest location, per acre estimates were obtained from 10 Basal Area 37.5 point samples.

The sampling methods were developed to provide suitable estimates for east Texas. Estimates for smaller areas are presented, but sampling error increases as the area considered decreases. Sampling errors given in Table I are based on one standard deviation or a probability of two chances out of three. To estimate the sampling error for a combination of counties one can use the following:

$$SE_g = \frac{SE_t \sqrt{X_t}}{\sqrt{X_g}}$$

where:

SE = standard error of estimate (expressed as a percent)
X = variable of interest (area or volume)
g = group of counties to be combined
t = total for the unit

**Table I** – *Sampling errors[1] for timberland, growing stock, and sawtimber, East Texas, 1986*

| County | Timberland | Growing stock | | | Sawtimber volume |
|---|---|---|---|---|---|
| | | Volume | Growth | Removals | |
| | | | *Percent* | | |
| Anderson | 1.8 | 11.3 | 17.3 | 16.7 | 12.9 |
| Angelina | 1.9 | 9.2 | 8.9 | 16.6 | 10.6 |
| Bowie | 2.0 | 11.9 | 18.3 | 16.7 | 13.6 |
| Cass | 1.8 | 8.4 | 9.6 | 12.2 | 10.8 |
| Cherokee | 2.2 | 10.2 | 8.8 | 16.2 | 12.1 |
| Grimes | 2.3 | 15.6 | 18.3 | 32.1 | 19.6 |
| Hardin | 1.6 | 9.1 | 12.9 | 8.6 | 11.0 |
| Harris | 1.6 | 12.7 | 28.9 | 26.4 | 13.9 |
| Harrison | 2.7 | 8.9 | 8.7 | 12.1 | 10.5 |
| Henderson | 2.7 | 13.1 | 26.6 | 36.6 | 15.8 |
| Houston | 1.7 | 10.5 | 8.9 | 11.0 | 12.2 |
| Jasper | 2.0 | 8.3 | 8.0 | 12.3 | 9.5 |
| Jefferson[3] | 0.9 | 19.0 | 31.7 | 47.2 | 20.4 |
| Leon | 3.6 | 13.2 | 22.8 | 34.6 | 15.7 |
| Liberty | 1.3 | 10.1 | 17.4 | 13.8 | 11.5 |
| Madison | 1.2 | 23.1 | 46.9 | ... | 24.3 |
| Marion | 2.9 | 9.2 | 8.9 | 19.1 | 10.7 |
| Montgomery | 2.2 | 7.1 | 10.2 | 8.5 | 8.4 |
| Morris | 4.2 | 21.8 | 22.9 | 30.7 | 23.7 |

Table I – *Sampling errors*[1] *for timberland, growing stock, and sawtimber, East Texas, 1986 —Continued*

| County | Timberland | Growing stock | | | Sawtimber volume |
|---|---|---|---|---|---|
| | | Volume | Growth | Removals | |
| | | | *Percent* | | |
| Nacogdoches | 1.7 | 9.7 | 6.8 | 16.4 | 11.4 |
| Newton | 1.8 | 7.6 | 7.2 | 10.4 | 8.7 |
| Orange | 2.6 | 13.6 | 15.8 | 34.0 | 14.8 |
| Panola | 1.8 | 11.0 | 10.3 | 15.8 | 12.0 |
| Polk | 1.5 | 8.2 | 8.0 | 8.6 | 9.6 |
| Red River | 1.2 | 7.6 | 17.0 | 22.4 | 8.6 |
| Rusk | 2.7 | 12.7 | 12.7 | 17.0 | 15.1 |
| Sabine | 1.9 | 11.1 | 8.3 | 16.1 | 12.6 |
| San Augustine | 1.9 | 11.9 | 14.5 | 14.8 | 14.7 |
| San Jacinto | 1.9 | 10.3 | 12.8 | 13.9 | 11.7 |
| Shelby | 1.6 | 12.5 | 11.9 | 16.4 | 15.0 |
| Smith | 2.1 | 12.1 | 17.4 | 16.1 | 13.7 |
| Titus[4] | 2.6 | 18.8 | 21.1 | 27.1 | 22.8 |
| Trinity | 1.5 | 12.6 | 8.2 | 11.0 | 14.3 |
| Tyler | 0.9 | 9.1 | 7.2 | 10.8 | 10.2 |
| Upshur[5] | 2.6 | 12.7 | 12.4 | 18.6 | 14.7 |
| Van Zandt | 1.9 | 19.7 | 36.3 | 25.8 | 24.7 |
| Walker | 1.8 | 10.3 | 9.3 | 15.8 | 12.1 |
| Waller | 2.1 | 19.1 | 20.8 | (2) | 21.1 |
| Wood | 2.9 | 11.7 | 14.9 | 16.6 | 14.0 |
| All counties | 0.3 | 1.9 | 2.0 | 2.7 | 2.2 |

[1] By random-sampling formula.
[2] Sampling error greater than 50.
[3] Chambers included in Jefferson.
[4] Camp and Franklin included in Titus.
[5] Gregg included in Upshur.

Tables 1-25 were developed to provide compatability among Forest Inventory and Analysis Projects. Tables 26-35 are supplementary tables and may change from unit to unit or state to state to address specific resource issues.

## DEFINITION OF TERMS

*Average annual gross growth.* — Average annual net growth plus average annual mortality.

*Average net annual growth.* — Average net annual volume increase for the intersurvey period.

*Average cnnual mortality.* — Average annual sound-wood volume of live trees dying from natural causes.

*Average annual removals.* — Average annual net volume of growing-stock trees removed from the inventory by harvesting, cultural operations (such as timber-stand improvement), land clearing, or changes in land use.

*Forest type.* — A classification of forest land based upon the species forming a plurality of live-tree stocking.

*Growing-stock trees.* — Live trees of commercial species. Rough and rotten trees are excluded.

*Growing-stock volume.* — The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches in diameter at breast height, from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or to the point where the central stem breaks into limbs.

*Noncommercial species.* — Tree species of typically small size, poor form, or inferior quality which normally do not develop into trees suitable for industrial wood products.

*Poletimber trees.* — Growing-stock trees of commercial species at least 5.0 inches in diameter at breast height, but smaller than sawtimber size.

*Rotten trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of rot.

*Reserved timberland.* — Productive public forest land withdrawn from timber utilization through statute or administrative regulations.

*Rough trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of roughness or poor form. Also included are all live trees of noncommercial species.

*Sawtimber trees.* — Live trees that are of commercial species, contain at least a 12-foot saw log, and meet regional specifications for freedom from defect. Softwoods must be at least 9.0 inches in diameter at breast height and hardwoods at least 11.0 inches in diameter at breast height.

*Sawtimber volume.* — Sound-wood volume of the saw-log portion of live sawtimber trees in board feet, International 1/4-inch rule and in cubic feet.

*Site class.* — A classification of forest land in terms of inherent capacity to grow crops of industrial wood.

*Stand-size class.* — A classification of forest land based on the size class of growing-stock trees on the sampled area; that is, sawtimber, poletimber, or sapling and seedling.

*Timberland.* — Forest land that is producing, or is capable of producing, crops of industrial wood and not withdrawn from timber utilization. Timberland is synonymous with "commercial forest land" in prior reports.

*Woodland.* — Forest land incapable of yielding crops of industrial wood because of adverse site conditions.

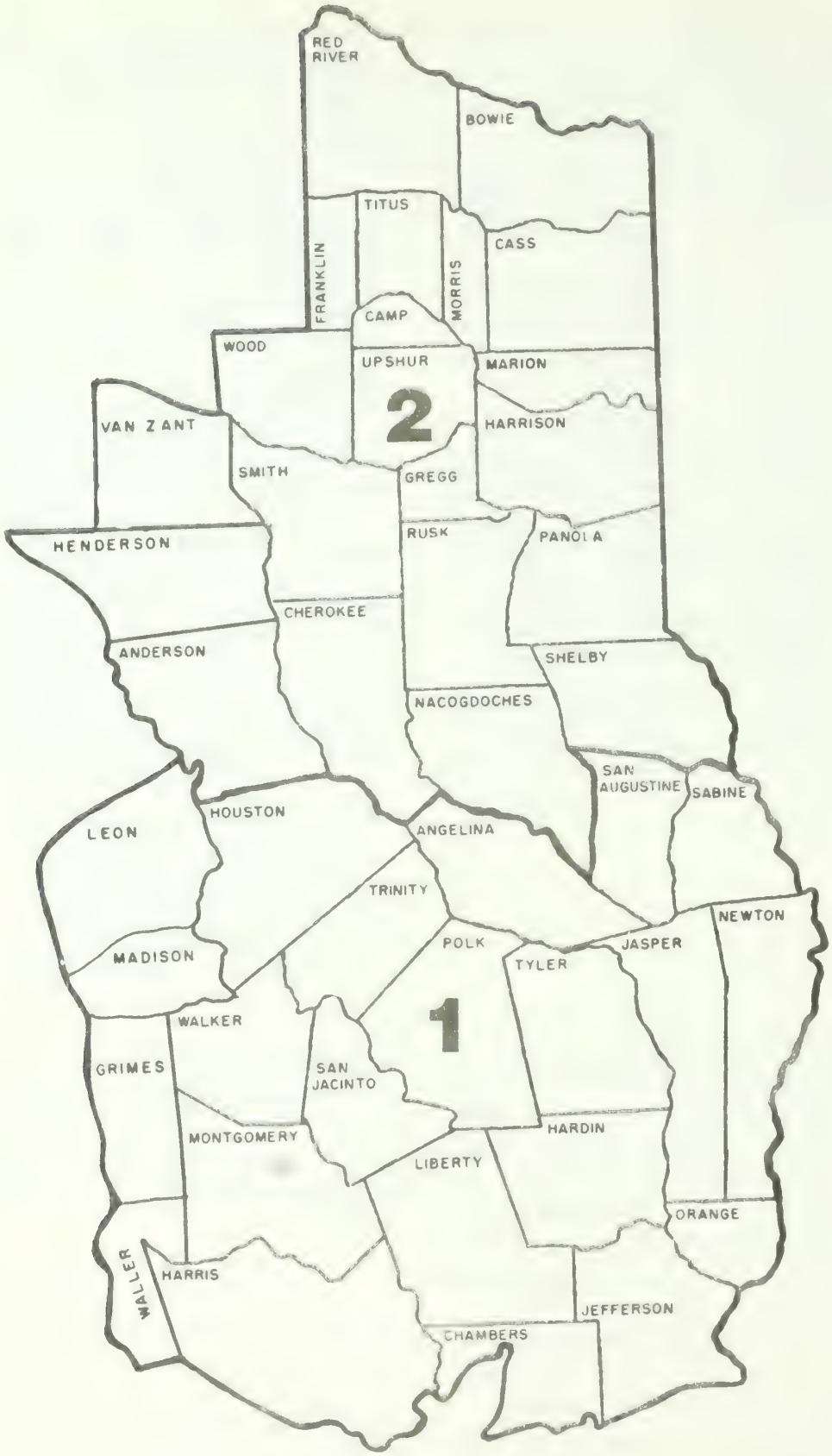



**Figure 1.--The Forest Survey regions of East Texas**

**Table 1 – *Area by county and land class, East Texas, 1986***

| County | All land[1] | Forest land | | | | Nonforest land |
|---|---|---|---|---|---|---|
| | | Total | Timberland[2] | Woodland[3] | Reserved timberland | |
| | *Thousand acres* | | | | | |
| Anderson | 690.9 | 321.6 | 321.6 | ... | ... | 369.3 |
| Angelina | 553.6 | 387.1 | 376.6 | ... | 10.5 | 166.5 |
| Bowie | 590.5 | 259.9 | 259.9 | ... | ... | 330.7 |
| Camp[4] | ... | ... | ... | ... | ... | ... |
| Cass | 614.6 | 440.3 | 440.3 | ... | ... | 174.2 |
| Chambers[5] | ... | ... | ... | ... | ... | ... |
| Cherokee | 679.6 | 394.8 | 394.8 | ... | ... | 284.8 |
| Franklin[4] | ... | ... | ... | ... | ... | ... |
| Gregg[6] | ... | ... | ... | ... | ... | ... |
| Grimes | 512.2 | 168.6 | 168.6 | ... | ... | 343.6 |
| Hardin | 575.0 | 476.5 | 430.0 | ... | 46.5 | 98.5 |
| Harris | 1137.3 | 197.6 | 190.3 | 7.3 | ... | 939.8 |
| Harrison | 585.1 | 389.1 | 389.1 | ... | ... | 196.0 |
| Henderson | 607.2 | 193.9 | 162.6 | 31.3 | ... | 413.3 |
| Houston | 791.6 | 422.8 | 419.7 | ... | 3.1 | 368.8 |
| Jasper | 620.6 | 508.2 | 500.2 | ... | 8.0 | 112.5 |
| Jefferson[5] | 1044.8 | 73.1 | 72.1 | ... | 1.0 | 971.7 |
| Leon | 690.9 | 309.4 | 233.5 | 75.9 | ... | 381.5 |
| Liberty | 753.3 | 462.9 | 461.6 | ... | 1.3 | 290.4 |
| Madison | 302.5 | 79.0 | 79.0 | ... | ... | 223.5 |
| Marion | 269.8 | 200.4 | 200.4 | ... | ... | 69.4 |
| Montgomery | 688.7 | 444.9 | 441.2 | ... | 3.7 | 243.9 |
| Morris | 166.5 | 65.5 | 65.5 | ... | ... | 101.0 |
| Nacogdoches | 627.2 | 412.8 | 412.8 | ... | ... | 214.5 |
| Newton | 601.1 | 549.2 | 549.2 | ... | ... | 51.9 |
| Orange | 242.8 | 125.2 | 124.5 | ... | 0.7 | 117.7 |
| Panola | 526.6 | 317.2 | 317.2 | ... | ... | 209.4 |
| Polk | 708.5 | 556.3 | 539.8 | ... | 16.5 | 152.1 |
| Red River | 675.5 | 279.0 | 279.0 | ... | ... | 396.6 |
| Rusk | 600.1 | 294.0 | 294.0 | ... | ... | 306.1 |
| Sabine | 369.6 | 264.1 | 253.4 | ... | 10.7 | 105.5 |
| San Augustine | 378.4 | 288.3 | 283.0 | ... | 5.3 | 90.1 |
| San Jacinto | 402.0 | 290.9 | 290.9 | ... | ... | 111.1 |
| Shelby | 534.2 | 349.4 | 349.4 | ... | ... | 184.7 |
| Smith | 607.9 | 256.2 | 256.2 | ... | ... | 351.7 |
| Titus[4] | 590.8 | 191.9 | 191.9 | ... | ... | 398.9 |
| Trinity | 456.6 | 347.2 | 347.2 | ... | ... | 109.4 |
| Tyler | 600.0 | 530.6 | 518.2 | ... | 12.4 | 69.5 |
| Upshur[6] | 555.5 | 275.6 | 275.6 | ... | ... | 279.8 |
| Van Zandt | 550.0 | 105.3 | 105.3 | ... | ... | 444.7 |
| Walker | 512.9 | 305.6 | 305.6 | ... | ... | 207.2 |
| Waller | 332.4 | 82.1 | 82.1 | ... | ... | 250.3 |
| Wood | 445.4 | 183.1 | 183.1 | ... | ... | 262.3 |
| All counties | 22192.1 | 11799.5 | 11565.3 | 114.5 | 119.7 | 10392.6 |

[1] From U.S. Bureau of the Census.

[2] Forest land (formerly termed commercial forest land) that is producing or capable of producing at least 20 cubic feet of industrial wood per acre per year. Includes areas which may be inaccessible or inoperable by current standards. Excludes reserved timberlands.

[3] Forest land incapable of producing 20 cubic feet of industrial wood per acre per year under natural conditions because of adverse site condition.

[4] Camp and Franklin included in Titus.

[5] Chambers included in Jefferson.

[6] Gregg included in Upshur.

Table 2 – *Area of timberland by county and ownership class, East Texas, 1986*

| County | All ownerships | National forest | Misc. federal | State | County and municipal | Forest industry[1] | Farmer | Corporate[2] | Individua |
|---|---|---|---|---|---|---|---|---|---|
| | | | | *Thousand acres* | | | | | |
| Anderson | 321.6 | ... | ... | ... | ... | 73.4 | 62.1 | 28.2 | 158.0 |
| Angelina | 376.6 | 34.2 | ... | ... | ... | 184.9 | 61.6 | 13.7 | 82.2 |
| Bowie | 259.9 | ... | 47.2 | 5.9 | ... | 35.4 | 41.3 | 11.8 | 118.1 |
| Cass | 440.3 | ... | 18.9 | ... | ... | 94.4 | 44.0 | 12.6 | 270.5 |
| Cherokee | 394.8 | ... | ... | 6.1 | 6.1 | 127.5 | 36.4 | ... | 218.7 |
| Grimes | 168.6 | ... | ... | ... | ... | 22.0 | 102.6 | ... | 44.0 |
| Hardin | 430.0 | ... | ... | ... | ... | 324.0 | 5.9 | 35.3 | 64.8 |
| Harris | 190.3 | ... | ... | ... | ... | 14.6 | ... | 58.5 | 117.1 |
| Harrison | 389.1 | ... | ... | ... | ... | 29.0 | 58.1 | 29.0 | 273.0 |
| Henderson | 162.6 | ... | ... | ... | ... | ... | 93.8 | ... | 68.8 |
| Houston | 419.7 | 87.7 | ... | ... | ... | 68.9 | 43.8 | 12.5 | 206.7 |
| Jasper | 500.2 | 24.4 | ... | 6.1 | ... | 347.7 | 6.1 | 12.2 | 103.7 |
| Jefferson[3] | 72.1 | ... | ... | ... | ... | ... | 26.2 | 6.6 | 39.3 |
| Leon | 233.5 | ... | ... | ... | ... | ... | 122.6 | ... | 110.9 |
| Liberty | 461.6 | ... | 5.9 | ... | ... | 189.4 | ... | 23.7 | 242.6 |
| Madison | 79.0 | ... | ... | ... | ... | 7.9 | 47.4 | 15.8 | 7.9 |
| Marion | 200.4 | ... | ... | ... | ... | 30.4 | 12.1 | 24.3 | 133.6 |
| Montgomery | 441.2 | 31.1 | ... | 5.2 | ... | 10.4 | 10.4 | 140.1 | 244.0 |
| Morris | 65.5 | ... | ... | ... | ... | ... | 6.5 | 13.1 | 45.8 |
| Nacogdoches | 412.8 | 17.9 | 6.0 | ... | ... | 137.6 | 29.9 | ... | 221.3 |
| Newton | 549.2 | ... | ... | 5.5 | ... | 439.4 | 11.0 | 11.0 | 82.4 |
| Orange | 124.5 | ... | ... | ... | ... | 56.6 | ... | 5.7 | 62.2 |
| Panola | 317.2 | ... | ... | ... | ... | 79.3 | 5.7 | 5.7 | 226.6 |
| Polk | 539.8 | ... | ... | ... | ... | 425.0 | 5.7 | 5.7 | 103.4 |
| Red River | 279.0 | ... | ... | ... | ... | 49.6 | 99.2 | 43.4 | 86.8 |
| Rusk | 294.0 | ... | ... | ... | ... | 22.6 | 45.2 | 22.6 | 203.5 |
| Sabine | 253.4 | 63.4 | ... | ... | ... | 126.7 | 5.3 | 5.3 | 52.8 |
| San Augustine | 283.0 | 61.5 | 6.2 | ... | ... | 147.7 | 12.3 | ... | 55.4 |
| San Jacinto | 290.9 | 65.3 | ... | ... | 5.9 | 89.1 | 17.8 | 23.7 | 89.1 |
| Shelby | 349.4 | 61.7 | ... | ... | ... | 54.8 | 27.4 | ... | 205.5 |
| Smith | 256.2 | ... | ... | 6.2 | ... | ... | 93.7 | 31.2 | 125.0 |
| Titus[4] | 191.9 | ... | ... | ... | ... | ... | 22.1 | 7.4 | 162.4 |
| Trinity | 347.2 | 102.9 | ... | ... | ... | 199.3 | ... | ... | 45.0 |
| Tyler | 518.2 | ... | ... | ... | ... | 393.1 | 6.0 | 23.8 | 95.3 |
| Upshur[5] | 275.6 | ... | ... | ... | ... | 12.8 | 83.3 | 19.2 | 160.3 |
| Van Zandt | 105.3 | ... | ... | ... | ... | ... | 30.1 | ... | 75.2 |
| Walker | 305.6 | 60.1 | ... | 10.0 | ... | 20.0 | 20.0 | 10.0 | 185.4 |
| Waller | 82.1 | ... | ... | ... | ... | 7.5 | 22.4 | 14.9 | 37.3 |
| Wood | 183.1 | ... | ... | 11.4 | ... | ... | 51.5 | 22.9 | 97.3 |
| All counties | 11565.3 | 610.3 | 84.2 | 56.5 | 12.0 | 3820.8 | 1369.8 | 690.1 | 4921.7 |

[1] Includes land leased to forest industry.

[2] Indian land will be classed as corporate or individual as defined by the Bureau of Indian Affairs.

[3] Chambers included in Jefferson.

[4] Camp and Franklin included in Titus.

[5] Gregg included in Upshur.

**Table 3** – *Area of timberland by county and forest type group, East Texas, 1986*

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | *Thousand acres* | | | | | | | | |
| Anderson | 321.6 | ... | ... | ... | 62.1 | 67.7 | 95.9 | 73.4 | 22.6 |
| Angelina | 376.6 | 6.8 | ... | 54.8 | 178.0 | 68.5 | 41.1 | 27.4 | ... |
| Bowie | 259.9 | ... | ... | 5.9 | 35.4 | 65.0 | 82.7 | 59.1 | 11.8 |
| Cass | 440.3 | 6.3 | ... | 18.9 | 56.6 | 119.5 | 176.1 | 62.9 | ... |
| Cherokee | 394.8 | ... | ... | 24.3 | 85.0 | 121.5 | 151.8 | 12.1 | ... |
| Grimes | 168.6 | ... | ... | 7.3 | 51.3 | 29.3 | 51.3 | 29.3 | ... |
| Hardin | 430.0 | 29.5 | 5.9 | 58.9 | 82.5 | 100.1 | 111.9 | 41.2 | ... |
| Harris | 190.3 | ... | ... | 7.3 | 58.5 | 36.6 | 65.9 | 22.0 | ... |
| Harrison | 389.1 | ... | ... | 23.2 | 92.9 | 92.9 | 122.0 | 58.1 | ... |
| Henderson | 162.6 | ... | ... | ... | 12.5 | 18.8 | 118.8 | 12.5 | ... |
| Houston | 419.7 | 6.3 | ... | 31.3 | 144.1 | 81.4 | 94.0 | 62.6 | ... |
| Jasper | 500.2 | 42.7 | 12.2 | 30.5 | 134.2 | 146.4 | 73.2 | 61.0 | ... |
| Jefferson[1] | 72.1 | ... | ... | ... | 19.7 | 6.6 | 13.1 | 32.8 | ... |
| Leon | 233.5 | ... | ... | ... | 11.7 | 5.8 | 169.3 | 40.9 | 5.8 |
| Liberty | 461.6 | ... | ... | 29.6 | 41.4 | 47.3 | 147.9 | 195.3 | ... |
| Madison | 79.0 | ... | ... | ... | 7.9 | 7.9 | 55.3 | 7.9 | ... |
| Marion | 200.4 | ... | 6.1 | 6.1 | 42.5 | 54.7 | 60.7 | 30.4 | ... |
| Montgomery | 441.2 | ... | ... | 26.0 | 186.9 | 129.8 | 72.7 | 26.0 | ... |
| Morris | 65.5 | ... | ... | ... | 13.1 | 13.1 | 19.6 | 19.6 | ... |
| Nacogdoches | 412.8 | 6.0 | ... | 35.9 | 113.7 | 95.7 | 137.6 | 23.9 | ... |
| Newton | 549.2 | 76.9 | 16.5 | 98.9 | 93.4 | 76.9 | 137.3 | 49.4 | ... |
| Orange | 124.5 | 5.7 | ... | ... | 22.6 | 39.6 | 17.0 | 39.6 | ... |
| Panola | 317.2 | ... | ... | 45.3 | 56.6 | 96.3 | 51.0 | 62.3 | 5.7 |
| Polk | 539.8 | ... | 11.5 | 132.1 | 201.0 | 97.6 | 51.7 | 45.9 | ... |
| Red River | 279.0 | ... | ... | 12.4 | 31.0 | 24.8 | 117.8 | 93.0 | ... |
| Rusk | 294.0 | ... | ... | ... | 90.5 | 67.8 | 135.7 | ... | ... |
| Sabine | 253.4 | 5.3 | ... | 21.1 | 121.4 | 47.5 | 58.1 | ... | ... |
| San Augustine | 283.0 | ... | ... | 67.7 | 92.3 | 49.2 | 30.8 | 43.1 | ... |
| San Jacinto | 290.9 | ... | ... | 23.7 | 106.9 | 71.2 | 77.2 | 11.9 | ... |
| Shelby | 349.4 | ... | ... | 27.4 | 109.6 | 48.0 | 130.2 | 34.3 | ... |
| Smith | 256.2 | 6.2 | ... | 12.5 | 43.7 | 12.5 | 156.2 | 18.7 | 6.2 |
| Titus[2] | 191.9 | ... | ... | ... | 22.1 | 14.8 | 110.7 | 44.3 | ... |
| Trinity | 347.2 | ... | 6.4 | 70.7 | 141.5 | 64.3 | 45.0 | 19.3 | ... |
| Tyler | 518.2 | 11.9 | 17.9 | 65.5 | 95.3 | 172.7 | 113.2 | 41.7 | ... |
| Upshur[3] | 275.6 | ... | ... | 12.8 | 64.1 | 76.9 | 64.1 | 51.3 | 6.4 |
| Van Zandt | 105.3 | ... | ... | ... | ... | 15.0 | 82.7 | 7.5 | ... |
| Walker | 305.6 | ... | ... | 25.1 | 160.3 | 40.1 | 65.1 | 15.0 | ... |
| Waller | 82.1 | ... | ... | ... | 44.8 | 14.9 | 7.5 | 14.9 | ... |
| Wood | 183.1 | ... | ... | ... | 34.3 | 63.0 | 57.2 | 28.6 | ... |
| All counties | 11565.3 | 203.5 | 76.4 | 975.2 | 2961.4 | 2401.8 | 3369.3 | 1519.1 | 58.5 |

[1] Chambers included in Jefferson.
[2] Camp and Franklin included in Titus.
[3] Gregg included in Upshur.

**Table 4** - *Area of timberland by county and stand-size class, East Texas, 1986*

| County | All classes | Stand-size class | | | Nonstocked[1] areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | *Thousand acres* | | | | |
| Anderson | 321.6 | 197.5 | 73.4 | 33.9 | 16.9 |
| Angelina | 376.6 | 226.0 | 75.3 | 75.3 | ... |
| Bowie | 259.9 | 94.5 | 94.5 | 59.1 | 11.8 |
| Cass | 440.3 | 201.3 | 100.6 | 125.8 | 12.6 |
| Cherokee | 394.8 | 182.2 | 109.3 | 103.3 | ... |
| Grimes | 168.6 | 95.3 | 44.0 | 22.0 | 7.3 |
| Hardin | 430.0 | 153.2 | 70.7 | 164.9 | 41.2 |
| Harris | 190.3 | 102.4 | 29.3 | 43.9 | 14.6 |
| Harrison | 389.1 | 145.2 | 156.8 | 81.3 | 5.8 |
| Henderson | 162.6 | 56.3 | 50.0 | 31.3 | 25.0 |
| Houston | 419.7 | 256.8 | 75.2 | 81.4 | 6.3 |
| Jasper | 500.2 | 292.8 | 109.8 | 97.6 | ... |
| Jefferson[2] | 72.1 | 59.0 | ... | 6.6 | 6.6 |
| Leon | 233.5 | 75.9 | 110.9 | 29.2 | 17.5 |
| Liberty | 461.6 | 248.5 | 118.4 | 88.8 | 5.9 |
| Madison | 79.0 | 39.5 | 31.6 | ... | 7.9 |
| Marion | 200.4 | 103.2 | 60.7 | 36.4 | ... |
| Montgomery | 441.2 | 311.4 | 83.0 | 41.5 | 5.2 |
| Morris | 65.5 | 26.2 | 26.2 | 13.1 | ... |
| Nacogdoches | 412.8 | 203.4 | 119.6 | 89.7 | ... |
| Newton | 549.2 | 230.7 | 137.3 | 181.2 | ... |
| Orange | 124.5 | 84.9 | 17.0 | 17.0 | 5.7 |
| Panola | 317.2 | 152.9 | 79.3 | 85.0 | ... |
| Polk | 539.8 | 229.7 | 74.7 | 224.0 | 11.5 |
| Red River | 279.0 | 136.4 | 93.0 | 49.6 | ... |
| Rusk | 294.0 | 135.7 | 67.8 | 75.4 | 15.1 |
| Sabine | 253.4 | 158.4 | 31.7 | 63.4 | ... |
| San Augustine | 283.0 | 141.5 | 36.9 | 104.6 | ... |
| San Jacinto | 290.9 | 166.2 | 47.5 | 77.2 | ... |
| Shelby | 349.4 | 178.1 | 89.1 | 82.2 | ... |
| Smith | 256.2 | 68.7 | 106.2 | 68.7 | 12.5 |
| Titus[3] | 191.9 | 73.8 | 73.8 | 44.3 | ... |
| Trinity | 347.2 | 173.6 | 64.3 | 109.3 | ... |
| Tyler | 518.2 | 244.2 | 95.3 | 166.8 | 11.9 |
| Upshur[4] | 275.6 | 109.0 | 76.9 | 89.7 | ... |
| Van Zandt | 105.3 | 37.6 | 45.1 | 22.6 | ... |
| Walker | 305.6 | 200.4 | 60.1 | 45.1 | ... |
| Waller | 82.1 | 59.7 | 14.9 | 7.5 | ... |
| Wood | 183.1 | 63.0 | 63.0 | 40.1 | 17.2 |
| All counties | 11565.3 | 5715.1 | 2813.3 | 2778.5 | 258.5 |

[1] Timberland less than 16.7 percent stocked.

[2] Chambers included in Jefferson.

[3] Camp and Franklin included in Titus.

[4] Gregg included in Upshur.

**Table 5** – *Area of timberland by county and site class, East Texas, 1986*

| County | All classes | Site class (cubic feet/acre/year) | | | | |
|---|---|---|---|---|---|---|
| | | >165 | 120-165 | 85-120 | 50-85 | <50 |
| | *Thousand acres* | | | | | |
| Anderson | 321.6 | 28.2 | 90.3 | 73.4 | 101.6 | 28.2 |
| Angelina | 376.6 | 27.4 | 102.7 | 184.9 | 61.6 | ... |
| Bowie | 259.9 | 41.3 | 76.8 | 82.7 | 53.2 | 5.9 |
| Cass | 440.3 | 37.7 | 88.1 | 201.3 | 113.2 | ... |
| Cherokee | 394.8 | 66.8 | 151.8 | 145.8 | 18.2 | 12.1 |
| Grimes | 168.6 | ... | 14.7 | 51.3 | 87.9 | 14.7 |
| Hardin | 430.0 | 5.9 | 117.8 | 206.2 | 82.5 | 17.7 |
| Harris | 190.3 | 7.3 | 36.6 | 109.8 | 29.3 | 7.3 |
| Harrison | 389.1 | 11.6 | 98.7 | 156.8 | 116.2 | 5.8 |
| Henderson | 162.6 | 6.3 | ... | 25.0 | 56.3 | 75.0 |
| Houston | 419.7 | 31.3 | 175.4 | 137.8 | 75.2 | ... |
| Jasper | 500.2 | 73.2 | 146.4 | 183.0 | 97.6 | ... |
| Jefferson[1] | 72.1 | 6.6 | 6.6 | 45.9 | 13.1 | ... |
| Leon | 233.5 | 11.7 | 5.8 | 29.2 | 75.9 | 110.9 |
| Liberty | 461.6 | 29.6 | 100.6 | 112.4 | 183.4 | 35.5 |
| Madison | 79.0 | 15.8 | 15.8 | 15.8 | 23.7 | 7.9 |
| Marion | 200.4 | 12.1 | 115.4 | 54.7 | 18.2 | ... |
| Montgomery | 441.2 | 36.3 | 114.2 | 155.7 | 124.6 | 10.4 |
| Morris | 65.5 | 6.5 | 13.1 | 26.2 | 13.1 | 6.5 |
| Nacogdoches | 412.8 | 65.8 | 155.5 | 149.6 | 41.9 | ... |
| Newton | 549.2 | 98.9 | 186.7 | 203.2 | 54.9 | 5.5 |
| Orange | 124.5 | 11.3 | 56.6 | 45.3 | 11.3 | ... |
| Panola | 317.2 | 68.0 | 62.3 | 118.9 | 68.0 | ... |
| Polk | 539.8 | ... | 109.1 | 298.6 | 132.1 | ... |
| Red River | 279.0 | 6.2 | 43.4 | 68.2 | 130.2 | 31.0 |
| Rusk | 294.0 | 60.3 | 98.0 | 60.3 | 67.8 | 7.5 |
| Sabine | 253.4 | 73.9 | 110.9 | 52.8 | 15.8 | ... |
| San Augustine | 283.0 | 55.4 | 86.1 | 129.2 | 12.3 | ... |
| San Jacinto | 290.9 | 11.9 | 83.1 | 142.5 | 47.5 | 5.9 |
| Shelby | 349.4 | 48.0 | 143.9 | 123.3 | 34.3 | ... |
| Smith | 256.2 | 12.5 | 18.7 | 118.7 | 81.2 | 25.0 |
| Titus[2] | 191.9 | 36.9 | 36.9 | 51.7 | 66.4 | ... |
| Trinity | 347.2 | 25.7 | 102.9 | 147.9 | 64.3 | 6.4 |
| Tyler | 518.2 | 47.6 | 226.3 | 202.5 | 41.7 | ... |
| Upshur[3] | 275.6 | 44.9 | 96.2 | 121.8 | 12.8 | ... |
| Van Zandt | 105.3 | ... | ... | 15.0 | 52.7 | 37.6 |
| Walker | 305.6 | 5.0 | 55.1 | 145.3 | 85.2 | 15.0 |
| Waller | 82.1 | 14.9 | 22.4 | 22.4 | 22.4 | ... |
| Wood | 183.1 | 11.4 | 22.9 | 85.9 | 63.0 | ... |
| All counties | 11565.3 | 1154.3 | 3187.8 | 4300.7 | 2450.4 | 472.0 |

[1] Chambers included in Jefferson.

[2] Camp and Franklin included in Titus.

[3] Gregg included in Upshur.

Table 6 – *Area of timberland by county and stocking classes of growing-stock trees, East Texas, 1986*

| County | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | >130 | 100-130 | 60-100 | 16.7-60 | <16.7 |
| | *Thousand acres* | | | | | |
| Anderson | 321.6 | 5.6 | 16.9 | 95.9 | 186.2 | 16.9 |
| Angelina | 376.6 | 20.5 | 137.0 | 157.5 | 61.6 | ... |
| Bowie | 259.9 | 5.9 | 35.4 | 106.3 | 100.4 | 11.8 |
| Cass | 440.3 | 6.3 | 100.6 | 251.6 | 69.2 | 12.6 |
| Cherokee | 394.8 | 6.1 | 48.6 | 261.2 | 79.0 | ... |
| Grimes | 168.6 | ... | 7.3 | 14.7 | 139.2 | 7.3 |
| Hardin | 430.0 | 23.6 | 35.3 | 235.6 | 94.2 | 41.2 |
| Harris | 190.3 | ... | 14.6 | 109.8 | 51.2 | 14.6 |
| Harrison | 389.1 | 5.8 | 87.1 | 238.1 | 52.3 | 5.8 |
| Henderson | 162.6 | ... | 6.3 | 31.3 | 100.1 | 25.0 |
| Houston | 419.7 | 12.5 | 87.7 | 194.2 | 119.0 | 6.3 |
| Jasper | 500.2 | 12.2 | 79.3 | 268.4 | 140.3 | ... |
| Jefferson[1] | 72.1 | 13.1 | ... | 26.2 | 26.2 | 6.6 |
| Leon | 233.5 | ... | ... | 81.7 | 134.3 | 17.5 |
| Liberty | 461.6 | ... | 23.7 | 224.9 | 207.1 | 5.9 |
| Madison | 79.0 | ... | ... | 23.7 | 47.4 | 7.9 |
| Marion | 200.4 | 6.1 | 30.4 | 121.5 | 42.5 | ... |
| Montgomery | 441.2 | ... | 77.9 | 275.1 | 83.0 | 5.2 |
| Morris | 65.5 | ... | 19.6 | 39.3 | 6.5 | ... |
| Nacogdoches | 412.8 | 17.9 | 89.7 | 215.4 | 89.7 | ... |
| Newton | 549.2 | 16.5 | 98.9 | 263.6 | 170.3 | ... |
| Orange | 124.5 | ... | ... | 73.5 | 45.3 | 5.7 |
| Panola | 317.2 | ... | 73.6 | 192.6 | 51.0 | ... |
| Polk | 539.8 | 17.2 | 178.0 | 235.4 | 97.6 | 11.5 |
| Red River | 279.0 | 6.2 | 24.8 | 117.8 | 130.2 | ... |
| Rusk | 294.0 | ... | 30.2 | 165.8 | 82.9 | 15.1 |
| Sabine | 253.4 | 26.4 | 79.2 | 132.0 | 15.8 | ... |
| San Augustine | 283.0 | 18.5 | 110.7 | 116.9 | 36.9 | ... |
| San Jacinto | 290.9 | 5.9 | 59.4 | 148.4 | 77.2 | ... |
| Shelby | 349.4 | 20.6 | 75.4 | 157.6 | 95.9 | ... |
| Smith | 256.2 | 6.2 | 18.7 | 93.7 | 125.0 | 12.5 |
| Titus[2] | 191.9 | ... | 22.1 | 73.8 | 96.0 | ... |
| Trinity | 347.2 | 6.4 | 90.0 | 205.7 | 45.0 | ... |
| Tyler | 518.2 | 11.9 | 59.6 | 303.7 | 131.0 | 11.9 |
| Upshur[3] | 275.6 | 6.4 | 38.5 | 179.5 | 51.3 | ... |
| Van Zandt | 105.3 | ... | ... | 45.1 | 60.2 | ... |
| Walker | 305.6 | 15.0 | 65.1 | 145.3 | 80.2 | ... |
| Waller | 82.1 | ... | 7.5 | 52.2 | 22.4 | ... |
| Wood | 183.1 | ... | 22.9 | 74.4 | 68.7 | 17.2 |
| All counties | 11565.3 | 293.0 | 1952.1 | 5749.5 | 3312.3 | 258.5 |

[1] Chambers included in Jefferson.

[2] Camp and Franklin included in Titus.

[3] Gregg included in Upshur.

**Table 7** – *Area of timberland by forest type and ownership class, East Texas, 1986*

| Forest type[1] | All ownerships | National forest | Other public | Forest industry | Forest industry-leased | Other private |
|---|---|---|---|---|---|---|
| | | | *Thousand acres* | | | |
| Longleaf-slash pine | 279.9 | 11.4 | ... | 220.7 | ... | 47.9 |
| Loblolly-shortleaf pine | 3936.6 | 433.7 | 44.4 | 1463.5 | ... | 1995.1 |
| Softwood total | 4216.6 | 445.1 | 44.4 | 1684.2 | ... | 2043.0 |
| Oak-pine | 2401.8 | 65.2 | 30.5 | 872.7 | ... | 1433.3 |
| Oak-hickory | 3369.3 | 76.3 | 47.6 | 798.5 | 19.3 | 2427.6 |
| Oak-gum-cypress | 1519.1 | 23.7 | 24.3 | 440.1 | 5.9 | 1025.1 |
| Elm-ash-cottonwood | 58.5 | ... | 5.9 | ... | ... | 52.6 |
| Hardwood total | 7348.8 | 165.2 | 108.3 | 2111.4 | 25.2 | 4938.7 |
| All types | 11565.3 | 610.3 | 152.7 | 3795.5 | 25.2 | 6981.6 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

**Table 8** – *Area of timberland by ownership and stocking classes of growing-stock trees, East Texas, 1986*

| Ownership class | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | >130 | 100-130 | 60-100 | 16.7-60 | <16.7 |
| | | | *Thousand acres* | | | |
| National forest | 610.3 | 42.3 | 216.9 | 305.6 | 45.4 | ... |
| Other public | 152.7 | ... | 41.1 | 70.6 | 35.3 | 5.7 |
| Forest industry | 3795.5 | 153.7 | 697.4 | 1941.5 | 932.0 | 70.9 |
| Forest industry-leased | 25.2 | ... | ... | 11.4 | 13.8 | ... |
| Other private | 6981.6 | 96.9 | 996.7 | 3420.4 | 2285.8 | 181.8 |
| All ownerships | 11565.3 | 293.0 | 1952.1 | 5749.5 | 3312.3 | 258.5 |

Table 9 – *Area of timberland by forest type and stand-size class, East Texas, 1986*

| Forest type[1] | All classes | Stand-size class | | | Nonstocked[2] areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | *Thousand acres* | | | | |
| Longleaf-slash pine | 279.9 | 96.0 | 127.2 | 56.7 | ... |
| Loblolly-shortleaf pine | 3936.6 | 2441.9 | 676.2 | 812.5 | 6.0 |
| Softwood total | 4216.6 | 2537.9 | 803.5 | 869.2 | 6.0 |
| Oak-pine | 2401.8 | 1226.8 | 462.1 | 695.5 | 17.3 |
| Oak-hickory | 3369.3 | 1030.1 | 1113.2 | 1052.8 | 173.1 |
| Oak-gum-cypress | 1519.1 | 879.2 | 428.8 | 155.3 | 55.9 |
| Elm-ash-cottonwood | 58.5 | 41.0 | 5.6 | 5.7 | 6.2 |
| Hardwood total | 7348.8 | 3177.1 | 2009.8 | 1909.3 | 252.5 |
| All types | 11565.3 | 5715.1 | 2813.3 | 2778.5 | 258.5 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood type.

[2] Timberland less than 16.7 percent stocked.

Table 10 – *Number of live trees on timberland by species and diameter class, East Texas, 1986*

| Species | All classes | Diameter class (inches at breast height) 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Thousand trees* | | | | | | | | | | | | |
| Longleaf-slash pines | 129763 | 55649 | 31719 | 17813 | 13098 | 5618 | 3197 | 1673 | 727 | 140 | 83 | 46 | ... |
| Shortleaf-loblolly pine | 1753103 | 808853 | 382242 | 210731 | 124849 | 76949 | 58466 | 39257 | 24629 | 13214 | 7059 | 6509 | 345 |
| Cypress | 10197 | 2130 | 1133 | 2347 | 1950 | 710 | 609 | 419 | 354 | 200 | 120 | 217 | 8 |
| Other softwoods | 41329 | 25221 | 9375 | 2893 | 2043 | 898 | 344 | 318 | 116 | 71 | 25 | 26 | ... |
| Total softwoods | 1934392 | 891853 | 424470 | 233784 | 141939 | 84175 | 62616 | 41667 | 25826 | 13625 | 7286 | 6798 | 353 |
| Select white oaks | 103024 | 56422 | 19216 | 9008 | 6602 | 3732 | 2292 | 1850 | 1589 | 890 | 586 | 774 | 64 |
| Select red oaks | 82871 | 56914 | 8743 | 5994 | 3129 | 2598 | 1508 | 1380 | 617 | 592 | 492 | 721 | 184 |
| Other white oaks | 371422 | 188676 | 63691 | 45757 | 27339 | 18453 | 11075 | 6232 | 4491 | 2380 | 1551 | 1582 | 194 |
| Other red oaks | 592310 | 346312 | 91931 | 46031 | 35076 | 24944 | 16437 | 11292 | 7883 | 4729 | 2851 | 4153 | 671 |
| Hickory | 184964 | 117444 | 29566 | 13694 | 8876 | 7149 | 3802 | 2332 | 1037 | 554 | 281 | 208 | 18 |
| Hard maple | 7114 | 4881 | 1256 | 352 | 188 | 171 | 181 | 23 | 28 | 27 | ... | 7 | ... |
| Soft maple | 137221 | 92311 | 26199 | 10195 | 5002 | 1852 | 780 | 450 | 148 | 166 | 31 | 87 | ... |
| Beech | 6058 | 2020 | 1030 | 274 | 358 | 507 | 444 | 478 | 360 | 227 | 117 | 223 | 19 |
| Sweetgum | 925876 | 597196 | 162506 | 77795 | 40514 | 23904 | 11506 | 6163 | 2780 | 1505 | 1053 | 869 | 85 |
| Tupelo-blackgum | 248693 | 173228 | 37831 | 16115 | 8812 | 4149 | 3137 | 2270 | 1485 | 717 | 343 | 529 | 77 |
| Ash | 160386 | 121986 | 17165 | 8032 | 4381 | 3088 | 2348 | 1545 | 830 | 582 | 200 | 205 | 25 |
| Cottonwood-aspen | 2057 | 543 | 543 | ... | 114 | 242 | 223 | 84 | 96 | 118 | 51 | 17 | 26 |
| Basswood | 5139 | 2690 | 2183 | ... | ... | 108 | ... | 69 | 28 | 36 | 20 | 6 | ... |
| Black walnut | 2434 | 1698 | ... | 88 | 242 | 223 | 121 | 40 | ... | ... | 10 | 9 | 3 |
| Other hardwoods | 1100507 | 801908 | 188739 | 54538 | 26116 | 12864 | 7218 | 4170 | 2394 | 1177 | 570 | 751 | 64 |
| Total hardwoods | 3930077 | 2564228 | 650599 | 287874 | 166748 | 103986 | 61071 | 38376 | 23765 | 13701 | 8156 | 10142 | 1430 |
| Noncommercial | 658800 | 484456 | 117775 | 35896 | 11330 | 4601 | 2471 | 1112 | 636 | 397 | 50 | 76 | ... |
| All species | 6523269 | 3940537 | 1192844 | 557553 | 320018 | 192762 | 126158 | 81155 | 50227 | 27723 | 15493 | 17016 | 1783 |

Table 11 – *Number of growing-stock trees on timberland by species and diameter class, East Texas, 1986*

| Species | All classes | Diameter class (inches at breast height) 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Thousand trees* | | | | | | | | | | | | |
| Longleaf-slash pines | 114530 | 48131 | 26396 | 16391 | 12724 | 5090 | 3168 | 1650 | 727 | 127 | 83 | 46 | ... |
| Shortleaf-loblolly pine | 1382716 | 553752 | 294553 | 193924 | 119096 | 74403 | 57472 | 38759 | 24404 | 12971 | 6906 | 6197 | 279 |
| Cypress | 6766 | 532 | ... | 2215 | 1642 | 630 | 582 | 379 | 322 | 164 | 120 | 170 | 8 |
| Other softwoods | 33199 | 20227 | 8126 | 2278 | 1358 | 622 | 221 | 223 | 97 | 26 | 12 | 9 | ... |
| Total softwoods | 1537210 | 622642 | 329074 | 214808 | 134819 | 80745 | 61444 | 41010 | 25549 | 13288 | 7121 | 6422 | 288 |
| Select white oaks | 58862 | 24192 | 11550 | 7172 | 5927 | 3448 | 2059 | 1578 | 1247 | 711 | 488 | 447 | 42 |
| Select red oaks | 43501 | 24875 | 4874 | 4742 | 2532 | 2229 | 1212 | 1148 | 454 | 471 | 346 | 504 | 113 |
| Other white oaks | 143702 | 38549 | 27626 | 27995 | 19487 | 13298 | 7179 | 4011 | 2742 | 1386 | 771 | 636 | 21 |
| Other red oaks | 272765 | 109116 | 48715 | 34507 | 27930 | 20096 | 11448 | 8352 | 5498 | 3149 | 1765 | 1994 | 194 |
| Hickory | 66010 | 26334 | 17189 | 7138 | 5173 | 5055 | 2401 | 1573 | 609 | 244 | 140 | 146 | 6 |
| Hard maple | 2573 | 2183 | ... | 263 | ... | 82 | 31 | ... | 14 | ... | ... | ... | ... |
| Soft maple | 36138 | 16709 | 9269 | 5831 | 2864 | 943 | 303 | 150 | 34 | 27 | ... | 8 | ... |
| Beech | 2573 | 1033 | ... | 122 | 214 | 237 | 271 | 298 | 206 | 112 | 48 | 32 | ... |
| Sweetgum | 479254 | 261478 | 87108 | 57784 | 34230 | 20038 | 9450 | 4944 | 1930 | 1035 | 753 | 453 | 50 |
| Tupelo-blackgum | 70715 | 30868 | 15108 | 8913 | 6925 | 3286 | 2135 | 1556 | 1037 | 456 | 207 | 226 | ... |
| Ash | 51976 | 29263 | 8928 | 4718 | 3481 | 2099 | 1486 | 1086 | 451 | 329 | 65 | 61 | 9 |
| Cottonwood-aspen | 1487 | 543 | ... | ... | 114 | 242 | 223 | 84 | 96 | 118 | 51 | 12 | 4 |
| Basswood | 1114 | ... | 1092 | ... | ... | ... | ... | 22 | ... | ... | ... | ... | ... |
| Black walnut | 285 | ... | ... | ... | 59 | 105 | 121 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 266651 | 142104 | 62808 | 29102 | 15799 | 8021 | 3882 | 2481 | 1326 | 585 | 202 | 329 | 12 |
| Total hardwoods | 1497608 | 707246 | 294268 | 188288 | 124736 | 79180 | 42202 | 27283 | 15645 | 8623 | 4836 | 4850 | 452 |
| All species | 3034818 | 1329888 | 623341 | 403096 | 259555 | 159926 | 103646 | 68293 | 41194 | 21911 | 11957 | 11272 | 739 |

**Table 12** – *Volume of growing stock on timberland by species and diameter class, East Texas, 1986*

| Species | All classes | Diameter class (inches at breast height) 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | | | | | |
| Longleaf-slash pines | 347.5 | 45.8 | 81.2 | 66.7 | 65.7 | 46.2 | 27.0 | 6.8 | 4.8 | 3.2 | ... |
| Shortleaf-loblolly pine | 7452.2 | 478.7 | 765.3 | 989.7 | 1208.2 | 1183.1 | 1016.7 | 686.5 | 470.4 | 603.2 | 50.4 |
| Cypress | 95.1 | 4.3 | 14.9 | 9.0 | 9.7 | 10.9 | 12.5 | 8.1 | 7.6 | 16.6 | 1.5 |
| Other softwoods | 25.8 | 4.4 | 6.2 | 5.0 | 2.9 | 3.4 | 2.4 | 0.9 | 0.3 | 0.3 | ... |
| Total softwoods | 7920.7 | 533.2 | 867.5 | 1070.5 | 1286.5 | 1243.6 | 1058.7 | 702.3 | 483.1 | 623.3 | 51.9 |
| Select white oaks | 290.0 | 19.7 | 33.2 | 35.6 | 35.1 | 36.3 | 40.1 | 29.5 | 24.4 | 30.8 | 5.4 |
| Select red oaks | 205.7 | 12.8 | 13.6 | 21.8 | 20.6 | 27.5 | 13.9 | 19.0 | 18.1 | 41.4 | 17.1 |
| Other white oaks | 587.4 | 58.8 | 92.0 | 107.6 | 91.0 | 70.8 | 65.0 | 40.2 | 28.3 | 31.8 | 1.8 |
| Other red oaks | 1338.3 | 88.2 | 152.8 | 201.4 | 180.2 | 187.9 | 162.3 | 125.6 | 85.2 | 132.5 | 22.3 |
| Hickory | 187.7 | 14.5 | 23.4 | 41.9 | 31.5 | 30.4 | 16.6 | 9.7 | 7.0 | 11.8 | 0.8 |
| Hard maple | 3.0 | 0.9 | ... | 0.9 | 0.7 | ... | 0.5 | ... | ... | ... | ... |
| Soft maple | 51.5 | 16.4 | 15.6 | 9.1 | 4.6 | 3.4 | 0.9 | 1.2 | ... | 0.3 | ... |
| Beech | 31.1 | 0.3 | 1.0 | 2.7 | 3.6 | 7.3 | 6.2 | 5.1 | 2.9 | 2.0 | ... |
| Sweetgum | 1014.8 | 128.0 | 192.7 | 210.7 | 161.9 | 124.5 | 66.2 | 45.6 | 42.2 | 35.4 | 7.7 |
| Tupelo-blackgum | 234.7 | 21.3 | 35.2 | 33.4 | 34.4 | 35.8 | 30.2 | 18.5 | 10.2 | 15.5 | ... |
| Ash | 128.9 | 10.6 | 19.4 | 21.7 | 23.0 | 23.2 | 12.6 | 11.8 | 2.8 | 2.9 | 0.7 |
| Cottonwood-aspen | 33.8 | ... | 1.4 | 4.2 | 7.8 | 3.3 | 4.7 | 7.0 | 3.5 | 1.2 | 0.7 |
| Basswood | 0.3 | ... | ... | ... | ... | 0.3 | ... | ... | ... | ... | ... |
| Black walnut | 2.5 | ... | 0.4 | 0.7 | 1.4 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 416.3 | 65.0 | 81.4 | 69.7 | 57.6 | 49.6 | 37.3 | 19.8 | 9.3 | 24.4 | 2.2 |
| Total hardwoods | 4526.0 | 436.5 | 662.1 | 761.5 | 653.4 | 600.2 | 456.5 | 333.0 | 234.0 | 330.0 | 58.8 |
| All species | 12446.7 | 969.7 | 1529.6 | 1832.0 | 1939.9 | 1843.8 | 1515.2 | 1035.3 | 717.1 | 953.4 | 110.7 |

Table 13 — *Volume of growing stock in the saw-log portion of sawtimber[1] trees on timberland by species and diameter class, East Texas, 1986*

| Species | All classes | Diameter class (inches at breast height) 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | | | |
| Longleaf-slash pines | 196.4 | 53.8 | 59.4 | 43.2 | 25.7 | 6.5 | 4.6 | 3.2 | ... |
| Shortleaf-loblolly pine | 5742.7 | 809.2 | 1100.5 | 1115.5 | 972.9 | 661.2 | 452.9 | 581.7 | 48.7 |
| Cypress | 68.4 | 6.4 | 7.8 | 9.8 | 11.7 | 7.8 | 7.5 | 15.9 | 1.5 |
| Other softwoods | 12.8 | 3.8 | 2.5 | 3.0 | 2.1 | 0.9 | 0.3 | 0.3 | ... |
| Total softwoods | 6020.3 | 873.2 | 1170.3 | 1171.5 | 1012.4 | 676.4 | 465.2 | 601.1 | 50.3 |
| Select white oaks | 175.9 | ... | 28.3 | 31.2 | 34.9 | 26.8 | 22.0 | 27.3 | 5.4 |
| Select red oaks | 137.7 | ... | 14.4 | 23.7 | 12.5 | 17.1 | 16.4 | 37.7 | 15.9 |
| Other white oaks | 291.4 | ... | 76.6 | 64.2 | 58.1 | 36.3 | 26.0 | 28.4 | 1.7 |
| Other red oaks | 774.4 | ... | 137.4 | 162.0 | 143.6 | 110.9 | 76.9 | 123.0 | 20.5 |
| Hickory | 94.5 | ... | 26.3 | 26.2 | 15.1 | 8.8 | 6.4 | 10.9 | 0.8 |
| Hard maple | 1.0 | ... | 0.6 | ... | 0.4 | ... | ... | ... | ... |
| Soft maple | 8.2 | ... | 3.7 | 2.4 | 0.8 | 1.0 | ... | 0.3 | ... |
| Beech | 24.8 | ... | 2.9 | 6.6 | 5.9 | 4.9 | 2.6 | 1.8 | ... |
| Sweetgum | 401.9 | ... | 113.3 | 105.9 | 61.3 | 42.1 | 38.9 | 33.2 | 7.3 |
| Tupelo-blackgum | 125.0 | ... | 25.6 | 30.6 | 27.3 | 17.0 | 9.9 | 14.6 | ... |
| Ash | 63.3 | ... | 17.2 | 19.3 | 10.9 | 10.2 | 2.4 | 2.7 | 0.6 |
| Cottonwood-aspen | 27.0 | ... | 7.4 | 3.1 | 4.5 | 6.8 | 3.4 | 1.2 | 0.7 |
| Basswood | 0.3 | ... | ... | 0.3 | ... | ... | ... | ... | ... |
| Black walnut | 1.2 | ... | 1.2 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 170.9 | ... | 45.7 | 42.9 | 31.4 | 17.1 | 8.8 | 22.9 | 2.1 |
| Total hardwoods | 2297.3 | ... | 500.8 | 518.3 | 406.6 | 298.9 | 213.8 | 303.9 | 55.0 |
| All species | 8317.6 | 873.2 | 1671.1 | 1689.8 | 1418.9 | 975.3 | 679.0 | 905.0 | 105.3 |

[1] That part of the bole of sawtimber trees between the 1-foot stump and the saw-log top, including the portion of the forks large enough to contain a saw log.

**Table 14** – *Volume of sawtimber on timberland by species and diameter class, East Texas, 1986*

| Species | All classes | Diameter class (inches at breast height) 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|
| | *Million board feet* | | | | | | | | |
| Longleaf-slash pines | 1152.2 | 294.5 | 355.3 | 260.0 | 153.0 | 41.6 | 27.8 | 19.9 | ... |
| Shortleaf-loblolly pine | 35127.8 | 4501.0 | 6596.7 | 6858.2 | 6072.5 | 4137.1 | 2887.5 | 3746.2 | 328.5 |
| Cypress | 376.3 | 23.8 | 38.6 | 55.3 | 66.2 | 45.6 | 41.1 | 95.6 | 10.2 |
| Other softwoods | 65.0 | 18.5 | 12.2 | 15.4 | 12.3 | 4.7 | 1.0 | 1.1 | ... |
| Total softwoods | 36721.3 | 4837.7 | 7002.8 | 7188.9 | 6304.0 | 4229.0 | 2957.4 | 3862.8 | 338.7 |
| Select white oaks | 1093.6 | ... | 162.8 | 182.3 | 217.7 | 178.2 | 141.2 | 177.3 | 34.0 |
| Select red oaks | 845.2 | ... | 76.5 | 134.7 | 73.2 | 105.1 | 102.6 | 248.7 | 104.4 |
| Other white oaks | 1733.5 | ... | 418.4 | 371.6 | 347.4 | 225.2 | 169.4 | 189.7 | 11.8 |
| Other red oaks | 4669.0 | ... | 749.5 | 929.9 | 866.4 | 691.6 | 490.0 | 801.4 | 140.0 |
| Hickory | 573.3 | ... | 148.1 | 154.9 | 94.7 | 56.1 | 41.5 | 72.1 | 75.9 |
| Hard maple | 6.5 | ... | 3.7 | ... | 2.8 | ... | ... | ... | ... |
| Soft maple | 47.4 | ... | 20.3 | 14.5 | 4.3 | 6.2 | ... | 2.2 | ... |
| Beech | 153.0 | ... | 16.5 | 39.3 | 35.7 | 32.2 | 17.8 | 11.5 | ... |
| Sweetgum | 2354.0 | ... | 617.8 | 613.3 | 363.2 | 258.5 | 241.8 | 211.9 | 47.4 |
| Tupelo-blackgum | 716.4 | ... | 135.0 | 171.3 | 157.4 | 100.8 | 58.8 | 93.2 | ... |
| Ash | 361.9 | ... | 93.1 | 109.2 | 63.5 | 59.4 | 15.5 | 17.3 | 3.9 |
| Cottonwood-aspen | 181.8 | ... | 56.7 | 21.2 | 29.7 | 43.0 | 19.9 | 7.1 | 4.1 |
| Basswood | 1.4 | ... | ... | 1.4 | ... | ... | ... | ... | ... |
| Black walnut | 6.5 | ... | 6.5 | ... | ... | ... | ... | ... | ... |
| Other hardwoods | 1029.1 | ... | 257.5 | 252.2 | 192.9 | 108.8 | 55.1 | 147.0 | 15.6 |
| Total hardwoods | 13772.6 | ... | 2762.3 | 2995.8 | 2449.1 | 1865.1 | 1353.6 | 1979.4 | 367.3 |
| All species | 50493.9 | 4837.7 | 9765.1 | 10184.7 | 8753.0 | 6094.1 | 4311.0 | 5842.2 | 706.0 |

Table 15 – *Volume of growing stock and sawtimber on timberland by county and species group, East Texas, 1986*

| County | Growing Stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | *Million cubic feet* | | | | | | *Million board feet* | | | | | |
| Anderson | 266.3 | ... | 136.0 | 1.7 | 55.3 | 73.2 | 1043.5 | ... | 580.1 | 2.9 | 192.1 | 268.4 |
| Angelina | 553.0 | 64.2 | 390.0 | 0.4 | 34.1 | 64.3 | 2252.5 | 178.8 | 1794.4 | ... | 86.3 | 193.0 |
| Bowie | 266.0 | 0.4 | 99.4 | ... | 69.4 | 96.8 | 1009.4 | 1.3 | 454.8 | ... | 249.0 | 304.3 |
| Cass | 440.7 | 18.5 | 160.9 | 3.9 | 98.1 | 159.2 | 1657.4 | 50.7 | 770.7 | 8.1 | 239.8 | 588.1 |
| Cherokee | 425.2 | 14.9 | 223.2 | 0.7 | 80.5 | 105.9 | 1657.0 | 53.7 | 1106.4 | 3.4 | 144.7 | 348.8 |
| Grimes | 94.6 | 4.0 | 42.8 | 5.2 | 5.8 | 36.7 | 312.0 | 12.4 | 138.4 | 15.0 | 9.8 | 136.4 |
| Hardin | 316.3 | 40.2 | 159.1 | 2.0 | 33.7 | 81.4 | 1154.5 | 90.5 | 687.5 | 6.1 | 67.2 | 303.3 |
| Harris | 203.9 | 6.5 | 133.0 | 0.9 | 32.4 | 31.1 | 884.8 | 22.9 | 632.9 | 5.1 | 109.4 | 114.5 |
| Harrison | 388.2 | 8.6 | 205.6 | 11.1 | 74.8 | 88.1 | 1247.5 | 21.9 | 820.5 | 8.7 | 140.5 | 255.9 |
| Henderson | 72.7 | 0.2 | 26.4 | 1.0 | 7.2 | 37.9 | 234.8 | ... | 106.4 | 1.3 | 11.8 | 115.3 |
| Houston | 561.4 | 33.4 | 358.5 | 3.2 | 65.6 | 100.6 | 2581.0 | 147.2 | 1904.1 | 14.1 | 169.6 | 345.9 |
| Jasper | 641.7 | 75.3 | 354.2 | 5.2 | 71.4 | 135.6 | 2617.9 | 130.3 | 1792.3 | 20.2 | 165.6 | 509.5 |
| Jefferson[3] | 107.5 | ... | 56.3 | 6.2 | 24.2 | 20.8 | 489.7 | ... | 305.6 | 24.2 | 82.9 | 77.0 |
| Leon | 138.7 | ... | 26.1 | 1.5 | 25.6 | 85.6 | 441.5 | ... | 126.8 | 6.6 | 77.0 | 231.1 |
| Liberty | 444.6 | 16.0 | 144.5 | 8.3 | 126.2 | 149.6 | 1737.3 | 22.7 | 766.9 | 35.8 | 380.7 | 531.2 |
| Madison | 53.3 | ... | 10.3 | 0.9 | 15.5 | 26.6 | 170.4 | ... | 42.7 | 1.0 | 33.6 | 93.2 |
| Marion | 226.2 | 1.7 | 116.2 | 19.4 | 34.9 | 54.2 | 770.3 | 3.6 | 512.3 | 56.9 | 65.5 | 132.0 |
| Montgomery | 647.1 | 18.7 | 475.9 | ... | 52.0 | 100.4 | 2879.9 | 35.1 | 2400.1 | ... | 116.5 | 328.1 |
| Morris | 54.3 | ... | 23.2 | ... | 12.7 | 18.4 | 179.3 | ... | 83.4 | ... | 47.7 | 48.2 |
| Nacogdoches | 536.6 | 22.8 | 335.7 | 0.4 | 83.0 | 94.7 | 2169.6 | 46.3 | 1618.6 | 1.5 | 168.8 | 334.3 |
| Newton | 540.9 | 104.6 | 247.1 | 4.6 | 73.1 | 111.4 | 2066.8 | 292.2 | 1156.4 | 22.2 | 223.9 | 372.2 |
| Orange | 149.7 | 9.8 | 76.7 | 2.9 | 14.2 | 46.1 | 689.6 | 45.5 | 414.9 | 11.2 | 40.8 | 177.2 |
| Panola | 384.9 | 34.8 | 198.6 | 19.0 | 43.3 | 89.3 | 1583.5 | 63.9 | 1002.9 | 100.9 | 83.6 | 332.2 |
| Polk | 570.7 | 26.1 | 422.6 | 2.0 | 44.8 | 75.2 | 2469.0 | 28.9 | 2050.6 | 9.1 | 137.4 | 243.0 |
| Red River | 242.3 | 15.1 | 83.6 | 0.9 | 21.7 | 121.1 | 810.9 | 64.5 | 339.0 | 2.6 | 59.8 | 345.0 |
| Rusk | 345.2 | ... | 224.4 | 1.7 | 40.2 | 78.9 | 1345.9 | ... | 1050.2 | 2.2 | 82.3 | 211.2 |
| Sabine | 440.6 | 26.1 | 321.5 | ... | 24.3 | 68.6 | 2134.1 | 145.2 | 1669.0 | ... | 70.8 | 249.1 |
| San Augustine | 312.3 | 45.0 | 179.8 | ... | 34.2 | 53.2 | 1298.7 | 150.9 | 921.1 | ... | 72.1 | 154.7 |
| San Jacinto | 366.6 | 13.5 | 244.0 | 9.9 | 51.1 | 48.1 | 1554.9 | 30.2 | 1194.9 | 54.4 | 129.4 | 145.9 |
| Shelby | 453.4 | 32.7 | 275.4 | 2.1 | 46.1 | 97.1 | 1978.4 | 118.8 | 1415.4 | 10.3 | 67.2 | 366.6 |
| Smith | 181.0 | 22.4 | 69.3 | 0.3 | 37.5 | 51.4 | 606.1 | 80.1 | 272.5 | ... | 79.1 | 174.4 |
| Titus[4] | 119.3 | ... | 39.6 | 1.1 | 23.4 | 55.2 | 385.0 | ... | 159.8 | 2.0 | 48.8 | 174.5 |
| Trinity | 454.0 | 22.9 | 346.2 | ... | 30.5 | 54.4 | 2202.4 | 10.6 | 1868.9 | ... | 104.4 | 218.4 |
| Tyler | 504.2 | 27.2 | 279.4 | 2.0 | 71.4 | 124.2 | 2113.9 | 26.9 | 1417.6 | 10.8 | 214.9 | 443.8 |
| Upshur[5] | 254.4 | 15.6 | 126.3 | ... | 51.7 | 60.7 | 972.6 | 70.3 | 593.6 | ... | 94.2 | 214.5 |
| Van Zandt | 60.8 | ... | 5.2 | 2.1 | 11.3 | 42.2 | 176.0 | ... | 26.1 | 3.6 | 29.2 | 117.1 |
| Walker | 382.9 | 14.4 | 290.8 | 0.3 | 23.6 | 53.9 | 1667.6 | 17.6 | 1406.3 | 1.4 | 68.2 | 174.2 |
| Waller | 111.9 | ... | 81.0 | ... | 8.1 | 22.8 | 480.0 | ... | 380.6 | ... | 28.4 | 70.9 |
| Wood | 133.3 | 0.5 | 74.7 | ... | 18.0 | 40.1 | 468.2 | ... | 332.5 | ... | 43.0 | 92.7 |
| All counties | 12446.7 | 736.2 | 7063.5 | 121.0 | 1671.0 | 2855.0 | 50493.9 | 1962.9 | 34317.1 | 441.3 | 4236.3 | 9536.3 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Chambers included in Jefferson.

[4] Camp and Franklin included in Titus.

[5] Gregg included in Upshur.

**Table 16** – *Volume of timber on timberland by class of timber and species group, East Texas, 1986*

| Class of timber | All species | Softwood | | | Hardwood | |
|---|---|---|---|---|---|---|
| | | Pine | | | | |
| | | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | |
| Sawtimber trees: | | | | | | |
| Saw-log portion | 8317.6 | 336.1 | 5603.0 | 81.2 | 717.1 | 1580.2 |
| Upper-stem portion | 868.2 | 39.3 | 450.4 | 9.9 | 130.6 | 238.0 |
| Total | 9185.9 | 375.4 | 6053.4 | 91.2 | 847.7 | 1818.2 |
| Poletimber trees | 3260.8 | 360.9 | 1010.1 | 29.8 | 823.3 | 1036.8 |
| All growing-stock trees | 12446.7 | 736.2 | 7063.5 | 121.0 | 1671.0 | 2855.0 |
| Rough trees: | | | | | | |
| Sawtimber size | 839.2 | 11.3 | 69.3 | 10.1 | 193.4 | 554.9 |
| Poletimber size | 639.3 | 13.9 | 52.0 | 4.8 | 193.5 | 375.1 |
| Total | 1478.4 | 25.3 | 121.3 | 14.9 | 386.9 | 930.0 |
| Rotten trees: | | | | | | |
| Sawtimber size | 283.7 | ... | 8.9 | 3.4 | 78.2 | 193.2 |
| Poletimber size | 23.2 | ... | 0.2 | 0.2 | 9.0 | 13.6 |
| Total | 306.9 | ... | 9.1 | 3.7 | 87.2 | 206.9 |
| Salvable dead trees: | | | | | | |
| Sawtimber size | 156.9 | 2.8 | 107.9 | 3.0 | 8.5 | 34.7 |
| Poletimber size | 56.3 | 5.6 | 27.9 | 0.9 | 7.8 | 14.0 |
| Total | 213.2 | 8.5 | 135.8 | 3.9 | 16.3 | 48.7 |
| All classes | 14445.2 | 770.0 | 7329.7 | 143.4 | 2161.5 | 4040.6 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 17 – *Volume of live trees and growing stock on timberland by ownership class and species group, East Texas, 1986*

| Ownership class | Live trees | | | | | | Growing stock | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | *Million cubic feet* | | | | | | | | | | | |
| National forest | 1456.6 | 49.3 | 1165.3 | ... | 81.2 | 160.8 | 1391.9 | 48.7 | 1153.2 | ... | 64.4 | 125.7 |
| Other public | 241.6 | 12.1 | 114.9 | 0.2 | 33.3 | 81.0 | 221.0 | 12.1 | 113.1 | ... | 27.4 | 68.4 |
| Forest industry | 3868.9 | 466.2 | 1796.4 | 59.0 | 542.1 | 1005.2 | 3412.5 | 453.2 | 1770.2 | 52.6 | 417.4 | 719.1 |
| Forest industry-leased | 23.2 | ... | 0.2 | 0.7 | 1.1 | 21.1 | 19.3 | ... | 0.2 | 0.6 | 1.1 | 17.3 |
| Other private | 8641.7 | 233.9 | 4117.0 | 79.6 | 1487.4 | 2723.8 | 7401.9 | 222.2 | 4026.8 | 67.8 | 1160.6 | 1924.5 |
| All ownerships | 14232.0 | 761.5 | 7193.9 | 139.6 | 2145.2 | 3991.9 | 12446.7 | 736.2 | 7063.5 | 121.0 | 1671.0 | 2855.0 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 18 – *Average net annual growth of growing stock and sawtimber on timberland by county and species group, East Texas, 1986*

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Softwood | | | Hardwood | | | Softwood | | | Hardwood | |
| | | Pine | | | | | | Pine | | | | |
| | All species | Planted | Natural | Other | Soft[1] | Hard[2] | All species | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | | *Million board feet* | | | | | |
| Anderson | 10.5 | 0.1 | 7.8 | 0.1 | 1.2 | 1.3 | 54.1 | ... | 38.6 | 0.3 | 7.8 | 7.3 |
| Angelina | 27.7 | 5.8 | 18.2 | ... | 1.4 | 2.2 | 119.4 | 20.2 | 87.1 | ... | 3.7 | 8.4 |
| Bowie | 15.1 | ... | 6.8 | ... | 4.0 | 4.3 | 64.9 | 0.2 | 30.0 | ... | 19.5 | 15.2 |
| Cass | 27.6 | 2.9 | 12.3 | 0.2 | 4.5 | 8.1 | 120.3 | 10.0 | 66.4 | -0.8 | 10.3 | 34.4 |
| Cherokee | 22.3 | 2.4 | 14.1 | ... | 2.3 | 3.5 | 118.9 | 9.7 | 82.7 | 0.1 | 7.1 | 19.3 |
| Grimes | 7.9 | 1.4 | 5.1 | 0.1 | 0.3 | 1.1 | 32.4 | 6.0 | 21.2 | 0.2 | 0.9 | 4.1 |
| Hardin | 16.5 | 5.5 | 8.3 | ... | 0.8 | 1.8 | 67.5 | 16.7 | 37.8 | 0.2 | 1.5 | 11.4 |
| Harris | 7.1 | ... | 6.3 | ... | 0.6 | 0.2 | 41.3 | ... | 37.8 | ... | 2.7 | 0.8 |
| Harrison | 25.0 | 0.9 | 17.3 | 0.4 | 2.5 | 3.9 | 97.6 | 4.5 | 76.5 | 0.7 | 5.1 | 10.8 |
| Henderson | 3.3 | 0.8 | 0.9 | 0.1 | 0.2 | 1.2 | 13.3 | 3.6 | 4.6 | 0.1 | 0.2 | 4.9 |
| Houston | 26.4 | 3.6 | 16.0 | 0.1 | 1.5 | 5.2 | 148.9 | 18.1 | 103.1 | 0.9 | 4.1 | 22.6 |
| Jasper | 32.7 | 7.0 | 17.3 | ... | 3.0 | 5.4 | 141.2 | 13.6 | 96.0 | 0.5 | 7.5 | 23.7 |
| Jefferson[3] | 3.2 | ... | 2.7 | 0.2 | 0.3 | 0.1 | 23.3 | ... | 17.2 | 1.2 | 2.2 | 2.7 |
| Leon | 6.8 | ... | 2.9 | ... | 0.3 | 3.6 | 37.8 | ... | 16.4 | 0.5 | 2.0 | 19.0 |
| Liberty | 13.8 | 1.3 | 4.1 | 0.2 | 4.0 | 4.3 | 66.4 | 2.1 | 29.2 | 0.6 | 14.6 | 19.8 |
| Madison | 1.1 | ... | 0.9 | ... | 0.2 | ... | 1.1 | ... | 3.5 | ... | -0.9 | -1.5 |
| Marion | 15.6 | 0.6 | 9.9 | 1.0 | 1.8 | 2.3 | 59.6 | 1.8 | 48.5 | 2.6 | 2.7 | 4.0 |
| Montgomery | 23.6 | 1.7 | 17.4 | ... | 2.0 | 2.5 | 130.2 | 3.7 | 108.2 | ... | 6.6 | 11.6 |
| Morris | 3.2 | ... | 2.1 | ... | 0.4 | 0.7 | 12.6 | ... | 9.9 | ... | 0.1 | 2.6 |
| Nacogdoches | 29.4 | 2.8 | 18.6 | ... | 3.4 | 4.5 | 140.4 | 6.1 | 103.5 | 0.2 | 10.1 | 20.6 |
| Newton | 29.9 | 10.1 | 12.5 | 0.1 | 1.9 | 5.3 | 121.8 | 28.7 | 67.7 | 0.7 | 5.5 | 19.1 |
| Orange | 6.1 | 1.4 | 3.7 | 0.1 | 0.3 | 0.7 | 37.7 | 7.7 | 22.7 | 0.1 | 1.5 | 5.7 |
| Panola | 18.8 | 3.7 | 8.8 | 0.3 | 2.4 | 3.6 | 85.1 | 9.1 | 51.2 | 2.8 | 5.1 | 16.9 |
| Polk | 35.5 | 6.1 | 23.5 | 0.1 | 1.9 | 3.9 | 158.8 | 16.1 | 124.8 | 0.4 | 4.9 | 12.6 |
| Red River | 11.3 | 2.1 | 4.4 | 0.1 | 0.4 | 4.3 | 48.3 | 7.8 | 22.3 | 0.3 | 1.4 | 16.5 |
| Rusk | 19.6 | ... | 13.2 | 0.1 | 2.2 | 4.1 | 95.8 | ... | 74.4 | 0.2 | 5.4 | 15.7 |
| Sabine | 17.4 | 1.3 | 12.6 | ... | 0.9 | 2.7 | 100.9 | 7.0 | 79.0 | ... | 2.8 | 12.2 |
| San Augustine | 14.8 | 4.1 | 7.2 | ... | 1.4 | 2.1 | 64.9 | 11.5 | 43.7 | ... | 2.5 | 7.1 |
| San Jacinto | 17.9 | 3.2 | 10.9 | ... | 1.8 | 1.9 | 90.3 | 9.2 | 68.5 | 1.3 | 5.0 | 6.3 |
| Shelby | 24.0 | 1.9 | 18.1 | 0.2 | 0.7 | 3.1 | 139.1 | 10.9 | 108.7 | 1.2 | 3.2 | 15.1 |
| Smith | 11.7 | 1.5 | 7.3 | ... | 0.6 | 2.3 | 48.1 | 7.5 | 30.5 | ... | 2.2 | 7.9 |
| Titus[4] | 6.9 | ... | 3.9 | ... | 0.6 | 2.5 | 31.3 | ... | 18.4 | ... | 3.4 | 9.5 |
| Trinity | 22.8 | 4.6 | 16.4 | ... | 0.9 | 1.0 | 121.9 | 13.2 | 99.5 | ... | 4.0 | 5.3 |
| Tyler | 23.6 | 4.9 | 12.0 | 0.1 | 1.8 | 4.8 | 105.7 | 10.8 | 70.8 | 0.6 | 5.8 | 17.7 |
| Upshur[5] | 16.6 | 1.5 | 10.8 | ... | 2.6 | 1.6 | 77.2 | 8.4 | 57.0 | ... | 3.3 | 8.5 |
| Van Zandt | 2.3 | ... | 0.3 | 0.1 | 0.2 | 1.7 | 7.9 | ... | 2.1 | ... | ... | 5.8 |
| Walker | 17.7 | 1.9 | 13.5 | ... | 1.0 | 1.2 | 81.6 | 2.8 | 72.3 | ... | 2.2 | 4.3 |
| Waller | 5.2 | ... | 3.8 | ... | 0.4 | 1.1 | 28.1 | ... | 23.1 | ... | 2.1 | 3.0 |
| Wood | 5.9 | 0.1 | 3.1 | ... | 0.6 | 2.0 | 26.3 | ... | 17.8 | ... | 2.5 | 6.0 |
| All counties | 626.8 | 85.2 | 374.7 | 3.3 | 57.5 | 106.2 | 2962.1 | 267.0 | 2072.7 | 15.0 | 170.5 | 436.9 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Chambers included in Jefferson.

[4] Camp and Franklin included in Titus.

[5] Gregg included in Upshur.

Table 19 – *Average annual removals of growing stock and sawtimber on timberland by county and species group, East Texas, 1986*

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Softwood | | | Hardwood | | | Softwood | | | Hardwood | |
| | | Pine | | | | | | Pine | | | | |
| | All species | Planted | Natural | Other | Soft[1] | Hard[2] | All species | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | | *Million board feet* | | | | | |
| Anderson | 6.5 | 0.7 | 3.3 | ... | 0.5 | 2.0 | 25.7 | 2.5 | 15.3 | ... | 1.6 | 6.3 |
| Angelina | 19.2 | 8.1 | 6.6 | ... | 0.9 | 3.5 | 91.0 | 46.6 | 31.8 | ... | 1.7 | 10.9 |
| Bowie | 13.0 | 0.6 | 7.7 | ... | 0.9 | 3.9 | 47.7 | 2.8 | 27.6 | ... | 3.3 | 13.9 |
| Cass | 24.0 | 5.2 | 10.1 | 0.1 | 3.4 | 5.2 | 71.5 | 13.1 | 37.0 | 0.3 | 7.3 | 13.8 |
| Cherokee | 18.1 | 6.2 | 8.3 | ... | 1.5 | 2.2 | 71.3 | 23.6 | 40.3 | ... | 2.9 | 4.5 |
| Grimes | 10.7 | 4.1 | 6.2 | ... | ... | 0.4 | 48.0 | 18.0 | 28.9 | ... | ... | 1.1 |
| Hardin | 33.5 | 13.5 | 9.0 | ... | 2.1 | 8.8 | 120.0 | 52.5 | 40.1 | ... | 4.4 | 23.0 |
| Harris | 9.2 | ... | 6.7 | ... | 0.6 | 2.0 | 40.5 | ... | 33.5 | ... | 0.9 | 6.0 |
| Harrison | 25.8 | 2.6 | 16.8 | 0.1 | 2.8 | 3.5 | 82.6 | 11.9 | 54.9 | 0.6 | 4.8 | 10.3 |
| Henderson | 3.6 | 2.0 | 0.3 | ... | 0.6 | 0.7 | 12.6 | 8.1 | 0.7 | ... | 2.3 | 1.6 |
| Houston | 16.2 | 6.3 | 7.8 | ... | 0.4 | 1.7 | 69.8 | 29.4 | 36.5 | ... | 0.6 | 3.2 |
| Jasper | 24.8 | 3.8 | 16.6 | ... | 1.4 | 2.9 | 87.5 | 7.6 | 68.4 | ... | 3.8 | 7.6 |
| Jefferson[3] | 2.6 | ... | 1.9 | ... | 0.2 | 0.5 | 11.4 | ... | 7.7 | ... | 1.0 | 2.7 |
| Leon | 3.0 | ... | 1.9 | ... | 0.2 | 0.9 | 12.4 | ... | 9.2 | ... | 0.8 | 2.4 |
| Liberty | 8.6 | 0.3 | 3.6 | ... | 1.4 | 3.3 | 37.4 | 1.8 | 19.5 | ... | 4.6 | 11.6 |
| Madison | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Marion | 11.5 | 0.8 | 8.5 | ... | 0.6 | 1.6 | 42.7 | 2.5 | 35.2 | ... | 1.4 | 3.6 |
| Montgomery | 25.1 | 0.8 | 21.5 | ... | 0.6 | 2.2 | 109.7 | 3.8 | 99.1 | ... | 1.1 | 5.7 |
| Morris | 4.0 | ... | 3.1 | ... | 0.5 | 0.4 | 14.9 | ... | 12.1 | ... | 1.4 | 1.3 |
| Nacogdoches | 15.9 | 3.9 | 7.6 | ... | 2.3 | 2.2 | 57.8 | 16.0 | 28.7 | ... | 6.5 | 6.6 |
| Newton | 37.9 | 14.6 | 14.1 | ... | 1.6 | 7.6 | 160.7 | 63.8 | 69.8 | ... | 4.2 | 22.9 |
| Orange | 3.8 | 2.1 | 1.3 | ... | 0.2 | 0.2 | 16.7 | 8.7 | 6.6 | ... | 0.6 | 0.9 |
| Panola | 20.7 | 4.5 | 12.0 | ... | 1.9 | 2.3 | 77.1 | 13.8 | 49.7 | ... | 5.7 | 7.9 |
| Polk | 51.8 | 18.9 | 26.6 | 0.1 | 1.7 | 4.5 | 216.2 | 85.8 | 116.4 | ... | 2.5 | 11.6 |
| Red River | 6.8 | 2.1 | 0.9 | ... | 0.1 | 3.7 | 19.0 | 2.8 | 4.0 | ... | 0.2 | 11.9 |
| Rusk | 17.5 | ... | 14.4 | ... | 0.9 | 2.2 | 62.4 | ... | 54.3 | ... | 1.3 | 6.8 |
| Sabine | 15.4 | 4.0 | 8.0 | ... | 1.0 | 2.4 | 64.5 | 18.1 | 37.9 | ... | 2.3 | 6.2 |
| San Augustine | 16.3 | 6.9 | 6.0 | ... | 0.9 | 2.4 | 57.8 | 23.0 | 25.4 | ... | 1.6 | 7.9 |
| San Jacinto | 24.9 | 8.2 | 14.2 | ... | 1.0 | 1.5 | 114.1 | 34.5 | 71.7 | ... | 2.9 | 5.0 |
| Shelby | 18.7 | 0.9 | 14.6 | ... | 0.9 | 2.4 | 67.6 | 2.6 | 56.6 | ... | 2.8 | 5.7 |
| Smith | 10.8 | 0.9 | 6.2 | ... | 1.4 | 2.4 | 35.8 | 2.0 | 23.1 | ... | 2.5 | 8.2 |
| Titus[4] | 9.5 | ... | 6.2 | ... | 0.8 | 2.4 | 41.1 | ... | 27.5 | 0.1 | 3.2 | 10.3 |
| Trinity | 21.4 | 7.3 | 13.5 | ... | 0.3 | 0.2 | 94.6 | 31.1 | 62.8 | ... | 0.2 | 0.6 |
| Tyler | 38.0 | 12.9 | 16.8 | ... | 2.5 | 5.9 | 169.7 | 57.1 | 90.4 | ... | 5.5 | 16.7 |
| Upshur[5] | 15.7 | 1.6 | 10.9 | ... | 1.7 | 1.4 | 53.1 | 3.9 | 40.0 | ... | 4.6 | 4.6 |
| Van Zandt | 0.8 | ... | ... | ... | ... | 0.8 | 1.6 | ... | ... | ... | ... | 1.6 |
| Walker | 18.1 | 3.5 | 13.3 | ... | 0.4 | 0.9 | 84.1 | 16.6 | 64.3 | ... | 1.6 | 1.6 |
| Waller | 3.4 | ... | 3.4 | ... | ... | ... | 15.6 | ... | 15.6 | ... | ... | ... |
| Wood | 5.2 | ... | 2.0 | ... | 0.9 | 2.3 | 21.4 | ... | 9.1 | ... | 3.4 | 8.9 |
| All counties | 612.0 | 147.1 | 331.7 | 0.4 | 39.4 | 93.3 | 2427.6 | 604.1 | 1451.9 | 1.0 | 95.4 | 275.2 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Chambers included in Jefferson.

[4] Camp and Franklin included in Titus.

[5] Gregg included in Upshur.

**Table 20** – *Average net annual growth and average annual removals of growing stock on timberland, East Texas, 1986*

| Species | Growth | Removals |
|---|---|---|
| | *Million cubic feet* | |
| Yellow pines | 459.9 | 478.9 |
| Other softwoods | 3.3 | 0.4 |
| Total softwoods | 463.2 | 479.2 |
| Select white-red oaks | 22.2 | 16.8 |
| Other white-red oaks | 70.1 | 63.9 |
| Hickory | 4.4 | 7.2 |
| Hard maple | ... | 0.1 |
| Sweetgum | 39.8 | 27.0 |
| Ash-walnut-black cherry | 5.2 | 2.8 |
| Other hardwoods | 21.8 | 15.0 |
| Total hardwoods | 163.6 | 132.8 |
| All species | 626.8 | 612.0 |

**Table 21** – *Average net annual growth and average annual removals of sawtimber on timberland, East Texas, 1986*

| Species | Growth | Removals |
|---|---|---|
| | *Million board feet* | |
| Yellow pines | 2339.7 | 2056.0 |
| Other softwoods | 15.0 | 1.0 |
| Total softwoods | 2354.7 | 2057.0 |
| Select white-red oaks | 89.1 | 56.2 |
| Other white-red oaks | 300.4 | 187.5 |
| Hickory | 17.8 | 17.9 |
| Sweetgum | 100.7 | 64.9 |
| Ash-walnut-black cherry | 19.1 | 9.6 |
| Other hardwoods | 80.2 | 34.6 |
| Total hardwoods | 607.5 | 370.6 |
| All species | 2962.1 | 2427.6 |

Table 22 – *Average annual mortality of growing stock and sawtimber on timberland by species, East Texas, 1986*

| Species | Growing stock | Sawtimber |
|---|---|---|
| | *Million cubic feet* | *Million board feet* |
| Yellow pines | 55.8 | 194.0 |
| Other softwoods | 0.5 | 1.9 |
| Total softwoods | 56.3 | 195.9 |
| Select white-red oaks | 2.9 | 9.2 |
| Other white-red oaks | 18.6 | 59.3 |
| Hickory | 2.6 | 6.7 |
| Sweetgum | 6.3 | 13.8 |
| Ash-walnut-black cherry | 0.9 | 2.6 |
| Other hardwoods | 9.1 | 22.7 |
| Total hardwoods | 40.3 | 114.2 |
| All species | 96.7 | 310.1 |

Table 23 – *Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, East Texas, 1986*

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | | | | | Pine | | | | |
| | | Planted | Natural | Other | Soft[1] | Hard[2] | | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | | | | | | | |
| National forest | 44.1 | 5.7 | 33.1 | ... | 1.9 | 3.4 | 30.1 | 11.6 | 16.4 | ... | 0.4 | 1.6 |
| Other public | 8.0 | 0.4 | 4.0 | ... | 0.9 | 2.6 | 4.4 | 0.1 | 2.0 | ... | 1.1 | 1.1 |
| Forest industry | 209.4 | 60.2 | 102.5 | 0.5 | 15.5 | 30.6 | 298.7 | 119.3 | 122.1 | 0.2 | 14.8 | 42.3 |
| Forest industry-leased | 0.5 | ... | ... | ... | ... | 0.4 | 1.2 | ... | 0.2 | ... | ... | 1.0 |
| Other private | 364.8 | 18.8 | 235.1 | 2.8 | 39.1 | 69.1 | 277.6 | 16.0 | 191.0 | 0.2 | 23.2 | 47.2 |
| All ownerships | 626.8 | 85.2 | 374.7 | 3.3 | 57.5 | 106.2 | 612.0 | 147.1 | 331.7 | 0.4 | 39.4 | 93.3 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

**Table 24** – *Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, East Texas, 1986*

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | *Million board feet* | | | | | | | | | | | |
| National forest | 282.5 | 13.7 | 246.3 | ... | 7.2 | 15.4 | 141.1 | 49.9 | 85.0 | ... | 0.9 | 5.3 |
| Other public | 38.0 | 3.2 | 23.5 | ... | 1.5 | 9.8 | 17.2 | 0.8 | 9.2 | . | 3.1 | 4.0 |
| Forest industry | 900.9 | 175.0 | 544.5 | 5.7 | 50.7 | 125.0 | 1232.5 | 506.3 | 576.3 | 0.6 | 33.4 | 115.9 |
| Forest industry-leased | 2.0 | ... | 0.1 | ... | ... | 1.9 | 4.0 | ... | 1.0 | ... | ... | 3.0 |
| Other private | 1738.7 | 75.0 | 1258.3 | 9.3 | 111.1 | 285.0 | 1032.8 | 47.1 | 780.4 | 0.4 | 58.0 | 146.9 |
| All ownerships | 2962.1 | 267.0 | 2072.7 | 15.0 | 170.5 | 436.9 | 2427.6 | 604.1 | 1451.9 | 1.0 | 95.4 | 275.2 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

**Table 25** – *Volume of sawtimber on timberland by species and tree grade, East Texas, 1986*

| Species | All grades | Grade 1 | Grade 2 | Grade 3 | Grade 4 |
|---|---|---|---|---|---|
| | *Million board feet* | | | | |
| Yellow pines | 36280.0 | 6142.3 | 7858.4 | 22279.3 | ... |
| Cypress | 376.3 | 115.0 | 123.5 | 137.8 | ... |
| Redcedar | 65.0 | 65.0 | ... | ... | ... |
| Total softwoods | 36721.3 | 6322.4 | 7981.9 | 22417.1 | ... |
| Select white-red oaks | 1938.8 | 212.9 | 374.9 | 810.2 | 540.9 |
| Other white-red oaks | 6402.5 | 214.6 | 744.2 | 2674.1 | 2769.6 |
| Hickory | 573.3 | 39.9 | 73.5 | 266.7 | 193.3 |
| Hard maple | 6.5 | ... | ... | ... | 6.5 |
| Sweetgum | 2354.0 | 186.0 | 408.6 | 1106.2 | 653.1 |
| Tupelo and blackgum | 716.4 | 93.3 | 227.0 | 276.9 | 119.2 |
| Ash-walnut-black cherry | 374.7 | 42.3 | 120.8 | 194.4 | 17.3 |
| Other hardwoods | 1406.3 | 111.0 | 225.6 | 646.0 | 423.8 |
| Total hardwoods | 13772.6 | 899.9 | 2174.4 | 5974.5 | 4723.7 |
| All species | 50493.9 | 7222.3 | 10156.3 | 28391.5 | 4723.7 |

Table 26 – *Volume of softwood growing stock on timberland by forest type, East Texas, 1986*

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | *Million cubic feet* | | | | | | | | |
| Anderson | 137.8 | ... | ... | ... | 90.5 | 39.5 | 6.1 | 1.6 | ... |
| Angelina | 454.6 | 19.0 | ... | 44.7 | 331.2 | 47.6 | 7.5 | 4.7 | ... |
| Bowie | 99.8 | ... | ... | ... | 62.6 | 33.3 | 2.7 | 1.2 | ... |
| Cass | 183.4 | 9.5 | ... | 3.2 | 91.5 | 50.7 | 27.4 | 1.2 | ... |
| Cherokee | 238.8 | ... | ... | 11.8 | 128.1 | 69.5 | 29.4 | ... | ... |
| Grimes | 52.1 | ... | ... | 4.0 | 37.8 | 8.4 | 1.8 | ... | ... |
| Hardin | 201.2 | 33.4 | 5.8 | 6.4 | 95.2 | 45.3 | 5.1 | 10.1 | ... |
| Harris | 140.4 | ... | ... | 6.5 | 103.6 | 17.8 | 8.4 | 4.0 | ... |
| Harrison | 225.3 | ... | ... | 8.6 | 139.3 | 45.0 | 17.5 | 14.9 | ... |
| Henderson | 27.6 | ... | ... | ... | 14.3 | 10.8 | 1.3 | 1.2 | ... |
| Houston | 395.1 | 2.2 | ... | 29.6 | 283.2 | 66.7 | 12.8 | 0.6 | ... |
| Jasper | 434.7 | 55.8 | 22.8 | 15.4 | 212.4 | 102.6 | 11.1 | 14.5 | ... |
| Jefferson[1] | 62.5 | ... | ... | ... | 47.5 | 6.8 | 2.1 | 6.2 | ... |
| Leon | 27.5 | ... | ... | ... | 19.5 | 3.3 | 4.6 | ... | ... |
| Liberty | 168.8 | ... | ... | 16.6 | 52.2 | 41.5 | 44.2 | 14.4 | ... |
| Madison | 11.2 | ... | ... | ... | 8.7 | 1.6 | 0.9 | ... | ... |
| Marion | 137.2 | ... | 6.7 | 1.7 | 56.8 | 43.3 | 5.0 | 23.8 | ... |
| Montgomery | 494.7 | ... | ... | 18.7 | 351.9 | 102.2 | 17.8 | 4.0 | ... |
| Morris | 23.2 | ... | ... | ... | 14.3 | 8.1 | 0.7 | ... | ... |
| Nacogdoches | 358.8 | 7.5 | ... | 14.2 | 241.4 | 73.2 | 22.6 | ... | ... |
| Newton | 356.3 | 37.9 | 22.0 | 57.3 | 164.5 | 45.8 | 23.6 | 5.2 | ... |
| Orange | 89.4 | 4.9 | ... | ... | 32.6 | 33.5 | ... | 18.3 | ... |
| Panola | 252.4 | ... | ... | 33.0 | 115.7 | 70.5 | 7.9 | 23.7 | 1.6 |
| Polk | 450.7 | ... | 20.2 | 22.9 | 345.5 | 56.0 | 1.2 | 4.8 | ... |
| Red River | 99.5 | ... | ... | 15.1 | 60.4 | 15.8 | 7.2 | 1.1 | ... |
| Rusk | 226.1 | ... | ... | ... | 172.7 | 40.4 | 13.1 | ... | ... |
| Sabine | 347.7 | 12.9 | ... | 12.5 | 258.4 | 46.6 | 17.3 | ... | ... |
| San Augustine | 224.9 | ... | ... | 43.8 | 154.8 | 18.0 | 7.2 | 1.1 | ... |
| San Jacinto | 267.4 | ... | ... | 8.8 | 185.7 | 51.2 | 12.2 | 9.5 | ... |
| Shelby | 310.2 | ... | ... | 32.7 | 209.6 | 37.0 | 25.1 | 5.8 | ... |
| Smith | 92.0 | 15.5 | ... | 6.6 | 46.8 | 7.0 | 16.2 | ... | ... |
| Titus[2] | 40.7 | ... | ... | ... | 26.2 | 3.9 | 9.7 | 0.9 | ... |
| Trinity | 369.1 | ... | 10.7 | 21.8 | 291.4 | 40.5 | 3.2 | 1.6 | ... |
| Tyler | 308.6 | 10.5 | 22.3 | 12.8 | 124.9 | 112.0 | 24.3 | 1.9 | ... |
| Upshur[3] | 142.0 | ... | ... | 14.9 | 85.9 | 30.4 | 5.9 | 4.2 | 0.8 |
| Van Zandt | 7.3 | ... | ... | ... | ... | 4.9 | 2.3 | ... | ... |
| Walker | 305.5 | ... | ... | 14.4 | 252.3 | 32.1 | 6.6 | ... | ... |
| Waller | 81.0 | ... | ... | ... | 69.3 | 11.7 | ... | ... | ... |
| Wood | 75.1 | ... | ... | ... | 40.0 | 31.5 | 3.6 | ... | ... |
| All counties | 7920.7 | 209.1 | 110.5 | 477.9 | 5018.5 | 1506.0 | 415.6 | 180.7 | 2.4 |

[1] Chambers included in Jefferson.

[2] Camp and Franklin included in Titus.

[3] Gregg included in Upshur.

Table 27 – *Volume of hardwood growing stock on timberland by forest type, East Texas, 1986*

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | *Million cubic feet* | | | | | | | | |
| Anderson | 128.5 | ... | ... | ... | 5.0 | 26.7 | 38.3 | 45.6 | 12.9 |
| Angelina | 98.4 | ... | ... | 3.7 | 39.6 | 28.8 | 9.7 | 16.5 | ... |
| Bowie | 166.2 | ... | ... | ... | 8.8 | 26.4 | 40.9 | 52.2 | 37.8 |
| Cass | 257.3 | ... | ... | ... | 14.9 | 51.5 | 123.1 | 67.7 | ... |
| Cherokee | 186.4 | ... | ... | 0.2 | 17.5 | 40.3 | 122.1 | 6.3 | ... |
| Grimes | 42.5 | ... | ... | ... | 1.5 | 3.5 | 19.1 | 18.4 | ... |
| Hardin | 115.1 | 0.5 | ... | 0.4 | 9.6 | 28.2 | 33.0 | 43.5 | ... |
| Harris | 63.5 | ... | ... | 1.7 | 5.8 | 8.0 | 40.2 | 7.8 | ... |
| Harrison | 162.9 | ... | ... | 0.9 | 19.4 | 27.3 | 66.0 | 49.2 | ... |
| Henderson | 45.1 | ... | ... | ... | 0.5 | 3.6 | 31.8 | 9.2 | ... |
| Houston | 166.2 | 0.4 | ... | 0.9 | 39.0 | 39.9 | 26.6 | 59.6 | ... |
| Jasper | 207.0 | 2.1 | 1.1 | 0.8 | 26.4 | 73.6 | 33.4 | 69.6 | ... |
| Jefferson[1] | 45.0 | ... | ... | ... | 5.0 | 7.5 | 4.3 | 28.1 | ... |
| Leon | 111.2 | ... | ... | ... | 1.2 | 0.4 | 75.4 | 30.6 | 3.7 |
| Liberty | 275.8 | ... | ... | ... | 4.5 | 34.1 | 93.3 | 143.9 | ... |
| Madison | 42.1 | ... | ... | ... | 0.7 | 1.7 | 28.9 | 10.9 | ... |
| Marion | 89.1 | ... | ... | 1.3 | 8.1 | 31.1 | 22.2 | 26.3 | ... |
| Montgomery | 152.4 | ... | ... | 0.3 | 42.7 | 62.3 | 32.5 | 14.5 | ... |
| Morris | 31.1 | ... | ... | ... | 1.3 | 15.5 | 3.1 | 11.1 | ... |
| Nacogdoches | 177.7 | 1.8 | ... | ... | 23.7 | 45.6 | 77.2 | 29.5 | ... |
| Newton | 184.6 | 1.5 | 1.7 | 4.5 | 27.7 | 27.5 | 73.9 | 47.8 | ... |
| Orange | 60.3 | ... | ... | ... | 9.0 | 14.5 | 9.9 | 26.9 | ... |
| Panola | 132.5 | ... | ... | 0.9 | 12.9 | 46.6 | 22.4 | 46.7 | 3.0 |
| Polk | 120.0 | ... | ... | 2.3 | 32.6 | 30.6 | 25.5 | 29.0 | ... |
| Red River | 142.8 | ... | ... | 0.4 | 4.4 | 10.7 | 59.3 | 68.0 | ... |
| Rusk | 119.1 | ... | ... | ... | 13.8 | 30.6 | 74.7 | ... | ... |
| Sabine | 92.9 | ... | ... | 0.3 | 29.8 | 29.3 | 33.5 | ... | ... |
| San Augustine | 87.4 | ... | ... | 1.7 | 25.8 | 5.9 | 4.7 | 49.3 | ... |
| San Jacinto | 99.2 | ... | ... | 0.3 | 23.4 | 24.4 | 34.3 | 16.8 | ... |
| Shelby | 143.2 | ... | ... | 5.1 | 25.1 | 15.1 | 64.7 | 33.1 | ... |
| Smith | 89.0 | ... | ... | 1.0 | 5.2 | 2.1 | 63.0 | 16.2 | 1.5 |
| Titus[2] | 78.6 | ... | ... | ... | 1.3 | 3.7 | 47.6 | 26.0 | ... |
| Trinity | 84.8 | ... | 0.3 | 1.0 | 22.2 | 14.3 | 18.8 | 28.3 | ... |
| Tyler | 195.6 | ... | 2.8 | 3.9 | 15.7 | 67.0 | 46.0 | 60.3 | ... |
| Upshur[3] | 112.4 | ... | ... | ... | 16.2 | 24.2 | 9.6 | 58.7 | 3.7 |
| Van Zandt | 53.6 | ... | ... | ... | ... | 5.5 | 43.9 | 4.2 | ... |
| Walker | 77.4 | ... | ... | 1.8 | 22.3 | 13.8 | 23.4 | 16.2 | ... |
| Waller | 30.9 | ... | ... | ... | 11.0 | 3.9 | 8.7 | 7.3 | ... |
| Wood | 58.1 | ... | ... | ... | 0.5 | 22.8 | 24.9 | 9.9 | ... |
| All counties | 4526.0 | 6.2 | 5.9 | 33.3 | 574.3 | 948.7 | 1609.9 | 1285.0 | 62.6 |

[1] Chambers included in Jefferson.
[2] Camp and Franklin included in Titus.
[3] Gregg included in Upshur.

Table 28 -- *Volume of softwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, East Texas, 1986*

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | *Million cubic feet* | | | | | | | | |
| Anderson | 98.8 | ... | ... | ... | 60.8 | 32.3 | 4.5 | 1.3 | ... |
| Angelina | 335.6 | 14.6 | ... | 16.3 | 255.2 | 38.4 | 6.9 | 4.1 | ... |
| Bowie | 77.5 | ... | ... | ... | 51.1 | 23.5 | 2.1 | 0.8 | ... |
| Cass | 138.9 | 5.1 | ... | 0.5 | 72.6 | 37.4 | 22.3 | 1.1 | ... |
| Cherokee | 193.5 | ... | ... | 8.0 | 102.9 | 59.5 | 23.2 | ... | ... |
| Grimes | 30.8 | ... | ... | 2.5 | 18.9 | 7.7 | 1.6 | ... | ... |
| Hardin | 129.8 | 14.1 | 2.3 | 2.2 | 62.4 | 38.4 | 2.7 | 7.7 | ... |
| Harris | 113.0 | ... | ... | 4.1 | 84.9 | 13.6 | 7.5 | 2.8 | ... |
| Harrison | 154.2 | ... | ... | 4.2 | 105.1 | 26.9 | 12.6 | 5.4 | ... |
| Henderson | 21.0 | ... | ... | ... | 12.2 | 7.5 | 0.6 | 0.8 | ... |
| Houston | 315.7 | 2.0 | ... | 21.2 | 231.9 | 53.1 | 7.5 | ... | ... |
| Jasper | 320.0 | 17.4 | 19.1 | 5.3 | 169.3 | 88.1 | 8.2 | 12.5 | ... |
| Jefferson[1] | 53.0 | ... | ... | ... | 40.7 | 6.7 | 1.3 | 4.4 | ... |
| Leon | 22.7 | ... | ... | ... | 16.4 | 2.3 | 3.9 | ... | ... |
| Liberty | 133.5 | ... | ... | 5.3 | 40.3 | 37.9 | 38.1 | 11.9 | ... |
| Madison | 8.0 | ... | ... | ... | 6.6 | 1.0 | 0.3 | ... | ... |
| Marion | 99.0 | ... | 4.0 | 0.6 | 43.2 | 32.7 | 2.7 | 15.8 | ... |
| Montgomery | 399.8 | ... | ... | 6.2 | 293.1 | 83.6 | 13.1 | 3.9 | ... |
| Morris | 14.7 | ... | ... | ... | 7.3 | 6.7 | 0.7 | ... | ... |
| Nacogdoches | 264.1 | 6.2 | ... | 0.8 | 187.5 | 56.2 | 13.4 | ... | ... |
| Newton | 239.7 | 7.9 | 10.1 | 32.4 | 129.9 | 34.3 | 21.2 | 3.9 | ... |
| Orange | 75.7 | 2.9 | ... | ... | 28.1 | 28.7 | ... | 15.9 | ... |
| Panola | 194.7 | ... | ... | 11.2 | 95.0 | 60.0 | 5.2 | 21.8 | 1.6 |
| Polk | 334.9 | ... | 15.5 | 1.9 | 266.9 | 45.6 | 0.7 | 4.3 | ... |
| Red River | 71.7 | ... | ... | 11.5 | 43.9 | 11.9 | 3.4 | 1.0 | ... |
| Rusk | 172.9 | ... | ... | ... | 131.9 | 30.4 | 10.6 | ... | ... |
| Sabine | 295.4 | 12.1 | ... | 10.6 | 216.5 | 41.6 | 14.6 | ... | ... |
| San Augustine | 174.1 | ... | ... | 25.2 | 127.8 | 14.6 | 5.9 | 0.5 | ... |
| San Jacinto | 198.1 | ... | ... | ... | 142.4 | 38.3 | 9.1 | 8.4 | ... |
| Shelby | 236.5 | ... | ... | 19.0 | 165.7 | 29.2 | 17.9 | 4.7 | ... |
| Smith | 60.3 | 12.7 | ... | 1.1 | 31.4 | 3.9 | 11.0 | ... | ... |
| Titus[2] | 28.4 | ... | ... | ... | 19.7 | 1.4 | 7.4 | ... | ... |
| Trinity | 299.2 | ... | 6.9 | 2.3 | 256.8 | 29.2 | 2.9 | 1.2 | ... |
| Tyler | 237.9 | 0.8 | 18.4 | 3.4 | 101.5 | 92.2 | 19.9 | 1.8 | ... |
| Upshur[3] | 110.2 | ... | ... | 11.3 | 69.3 | 21.8 | 4.0 | 3.1 | 0.7 |
| Van Zandt | 5.4 | ... | ... | ... | ... | 3.7 | 1.7 | ... | ... |
| Walker | 239.2 | ... | ... | 3.4 | 202.1 | 28.0 | 5.6 | ... | ... |
| Waller | 65.4 | ... | ... | ... | 55.9 | 9.5 | ... | ... | ... |
| Wood | 57.0 | ... | ... | ... | 30.8 | 23.2 | 3.0 | ... | ... |
| All counties | 6020.3 | 95.9 | 76.3 | 210.6 | 3978.0 | 1201.1 | 317.2 | 138.9 | 2.3 |

[1] Chambers included in Jefferson.

[2] Camp and Franklin included in Titus.

[3] Gregg included in Upshur.

**Table 29** – *Volume of hardwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, East Texas, 1986*

| County | Total | Forest type group | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Longleaf-slash pine | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | Planted | Natural | | | | |
| | *Million cubic feet* | | | | | | | | |
| Anderson | 75.8 | ... | ... | ... | 2.3 | 13.4 | 22.6 | 28.4 | 9.1 |
| Angelina | 48.3 | ... | ... | 1.9 | 14.9 | 16.7 | 4.0 | 10.8 | ... |
| Bowie | 89.5 | ... | ... | ... | 4.7 | 13.7 | 15.3 | 26.2 | 29.7 |
| Cass | 136.2 | ... | ... | ... | 6.8 | 22.3 | 63.9 | 43.3 | ... |
| Cherokee | 82.3 | ... | ... | ... | 7.1 | 17.0 | 54.9 | 3.3 | ... |
| Grimes | 24.4 | ... | ... | ... | 0.4 | 1.6 | 8.6 | 13.8 | ... |
| Hardin | 61.3 | ... | ... | 0.3 | 1.1 | 10.9 | 20.0 | 29.1 | ... |
| Harris | 38.4 | ... | ... | 1.1 | 3.9 | 1.5 | 27.5 | 4.4 | ... |
| Harrison | 68.9 | ... | ... | 0.2 | 6.7 | 10.1 | 24.4 | 27.4 | ... |
| Henderson | 20.5 | ... | ... | ... | 0.4 | 0.8 | 12.7 | 6.6 | ... |
| Houston | 84.1 | 0.3 | ... | 0.4 | 14.8 | 18.3 | 10.8 | 39.5 | ... |
| Jasper | 112.7 | 0.6 | 0.3 | ... | 7.3 | 37.1 | 17.2 | 50.1 | ... |
| Jefferson[1] | 26.9 | ... | ... | ... | 2.0 | 3.8 | 3.0 | 18.2 | ... |
| Leon | 52.0 | ... | ... | ... | 0.3 | 0.4 | 32.2 | 16.0 | 3.1 |
| Liberty | 150.4 | ... | ... | ... | 1.7 | 14.2 | 42.9 | 91.6 | ... |
| Madison | 21.2 | ... | ... | ... | 0.3 | 0.4 | 14.3 | 6.2 | ... |
| Marion | 33.3 | ... | ... | 0.3 | 1.4 | 12.1 | 3.2 | 16.3 | ... |
| Montgomery | 74.4 | ... | ... | ... | 19.8 | 31.4 | 16.9 | 6.3 | ... |
| Morris | 16.7 | ... | ... | ... | ... | 10.0 | 0.3 | 6.3 | ... |
| Nacogdoches | 83.2 | 1.3 | ... | ... | 8.5 | 22.7 | 35.6 | 15.1 | ... |
| Newton | 100.1 | 0.5 | 1.2 | 1.5 | 11.0 | 9.9 | 40.9 | 35.2 | ... |
| Orange | 35.1 | ... | ... | ... | 3.8 | 6.5 | 8.5 | 16.3 | ... |
| Panola | 68.7 | ... | ... | 0.3 | 3.9 | 26.3 | 10.6 | 25.3 | 2.3 |
| Polk | 63.8 | ... | ... | 1.1 | 15.0 | 11.0 | 15.2 | 21.6 | ... |
| Red River | 68.9 | ... | ... | ... | 1.3 | 5.0 | 27.8 | 34.8 | ... |
| Rusk | 52.0 | ... | ... | ... | 5.3 | 11.1 | 35.6 | ... | ... |
| Sabine | 53.7 | ... | ... | ... | 14.2 | 18.8 | 20.7 | ... | ... |
| San Augustine | 39.5 | ... | ... | 0.6 | 8.2 | 2.1 | 1.6 | 27.0 | ... |
| San Jacinto | 47.4 | ... | ... | ... | 8.8 | 6.5 | 20.7 | 11.3 | ... |
| Shelby | 70.1 | ... | ... | 3.1 | 11.0 | 5.2 | 29.5 | 21.3 | ... |
| Smith | 42.3 | ... | ... | 0.7 | 2.3 | 1.4 | 29.8 | 7.4 | 0.8 |
| Titus[2] | 38.5 | ... | ... | ... | 0.5 | 1.6 | 24.1 | 12.3 | ... |
| Trinity | 51.0 | ... | ... | 0.6 | 9.1 | 6.7 | 10.6 | 24.0 | ... |
| Tyler | 109.7 | ... | 1.0 | 1.5 | 5.8 | 28.0 | 29.0 | 44.3 | ... |
| Upshur[3] | 50.4 | ... | ... | ... | 8.9 | 10.8 | 2.8 | 26.0 | 1.9 |
| Van Zandt | 24.5 | ... | ... | ... | ... | 3.4 | 20.8 | 0.3 | ... |
| Walker | 41.1 | ... | ... | 1.4 | 8.9 | 7.8 | 12.8 | 10.4 | ... |
| Waller | 16.8 | ... | ... | ... | 2.8 | 1.8 | 7.5 | 4.8 | ... |
| Wood | 23.3 | ... | ... | ... | ... | 9.9 | 10.3 | 3.1 | ... |
| All counties | 2297.3 | 2.7 | 2.6 | 14.8 | 225.3 | 432.1 | 789.1 | 784.0 | 46.8 |

[1] Chambers included in Jefferson.
[2] Camp and Franklin included in Titus.
[3] Gregg included in Upshur.

Table 30 – *Volume of timber on timberland by county, class of timber and species group, East Texas, 1986*

| County | All classes | Growing stock | | Rough | | Rotten | |
|---|---|---|---|---|---|---|---|
| | | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| | *Million cubic feet* | | | | | | |
| Anderson | 336.6 | 137.8 | 128.5 | 3.6 | 56.0 | 0.2 | 10.5 |
| Angelina | 586.0 | 454.6 | 98.4 | 4.9 | 22.7 | 0.2 | 5.1 |
| Bowie | 307.7 | 99.8 | 166.2 | 2.2 | 30.4 | ... | 9.1 |
| Cass | 505.1 | 183.4 | 257.3 | 7.2 | 44.7 | ... | 12.5 |
| Cherokee | 481.9 | 238.8 | 186.4 | 2.8 | 42.1 | 0.3 | 11.4 |
| Grimes | 118.3 | 52.1 | 42.5 | 2.0 | 20.1 | ... | 1.7 |
| Hardin | 378.2 | 201.2 | 115.1 | 7.6 | 45.2 | ... | 9.1 |
| Harris | 229.2 | 140.4 | 63.5 | 3.6 | 18.4 | ... | 3.2 |
| Harrison | 435.7 | 225.3 | 162.9 | 8.1 | 28.1 | 1.7 | 9.5 |
| Henderson | 128.8 | 27.6 | 45.1 | 2.1 | 53.4 | ... | 0.6 |
| Houston | 627.7 | 395.1 | 166.2 | 11.7 | 43.9 | 0.6 | 10.1 |
| Jasper | 708.4 | 434.7 | 207.0 | 4.4 | 45.7 | 1.5 | 15.1 |
| Jefferson[1] | 123.2 | 62.5 | 45.0 | 0.2 | 13.5 | ... | 2.0 |
| Leon | 190.0 | 27.5 | 111.2 | 0.9 | 46.6 | ... | 3.7 |
| Liberty | 548.0 | 168.8 | 275.8 | 3.5 | 88.5 | ... | 11.5 |
| Madison | 69.1 | 11.2 | 42.1 | 0.1 | 13.5 | ... | 2.1 |
| Marion | 253.4 | 137.2 | 89.1 | 2.6 | 20.8 | 1.1 | 2.6 |
| Montgomery | 717.8 | 494.7 | 152.4 | 7.1 | 45.4 | 3.3 | 14.9 |
| Morris | 62.9 | 23.2 | 31.1 | 1.0 | 5.8 | 0.4 | 1.4 |
| Nacogdoches | 585.1 | 358.8 | 177.7 | 2.8 | 39.4 | ... | 6.4 |
| Newton | 624.7 | 356.3 | 184.6 | 7.6 | 59.6 | ... | 16.6 |
| Orange | 184.1 | 89.4 | 60.3 | 5.4 | 22.1 | 0.4 | 6.6 |
| Panola | 447.0 | 252.4 | 132.5 | 15.5 | 20.6 | 0.7 | 25.4 |
| Polk | 623.9 | 450.7 | 120.0 | 5.5 | 40.5 | ... | 7.3 |
| Red River | 300.3 | 99.5 | 142.8 | 1.6 | 47.6 | ... | 8.8 |
| Rusk | 385.6 | 226.1 | 119.1 | 5.2 | 31.0 | 0.4 | 3.9 |
| Sabine | 463.2 | 347.7 | 92.9 | 1.8 | 14.2 | ... | 6.6 |
| San Augustine | 349.2 | 224.9 | 87.4 | 2.6 | 25.8 | ... | 8.5 |
| San Jacinto | 409.7 | 267.4 | 99.2 | 4.8 | 28.9 | 0.7 | 8.6 |
| Shelby | 516.1 | 310.2 | 143.2 | 7.0 | 49.9 | ... | 5.8 |
| Smith | 234.4 | 92.0 | 89.0 | 2.9 | 39.3 | 0.3 | 10.9 |
| Titus[2] | 152.2 | 40.7 | 78.6 | 1.2 | 21.9 | ... | 9.8 |
| Trinity | 495.9 | 369.1 | 84.8 | 7.5 | 30.4 | ... | 4.1 |
| Tyler | 567.3 | 308.6 | 195.6 | 4.8 | 46.2 | ... | 12.1 |
| Upshur[3] | 293.7 | 142.0 | 112.4 | 4.7 | 29.2 | 0.7 | 4.7 |
| Van Zandt | 92.6 | 7.3 | 53.6 | 0.6 | 30.7 | ... | 0.5 |
| Walker | 413.6 | 305.5 | 77.4 | 2.9 | 22.8 | 0.3 | 4.8 |
| Waller | 125.7 | 81.0 | 30.9 | ... | 11.8 | ... | 2.0 |
| Wood | 159.9 | 75.1 | 58.1 | 1.5 | 20.4 | ... | 4.7 |
| All counties | 14232.0 | 7920.7 | 4526.0 | 161.5 | 1317.0 | 12.8 | 294.1 |

[1] Chambers included in Jefferson.

[2] Camp and Franklin included in Titus.

[3] Gregg included in Upshur.

**Table 31** – *Number of live trees on timberland by detailed species and diameter class, East Texas, 1986*

| Species | All classes | Diameter class (inches at breast height) 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Thousand trees* | | | | | | | | | | | | |
| Longleaf pine | 18068 | 4340 | 6423 | 2115 | 1242 | 1243 | 1185 | 867 | 439 | 140 | 49 | 23 | ... |
| Slash pine | 111694 | 51309 | 25296 | 15698 | 11856 | 4375 | 2012 | 806 | 288 | ... | 33 | 22 | ... |
| Shortleaf pine | 409479 | 154895 | 92349 | 46429 | 40404 | 27830 | 21699 | 13580 | 7315 | 3273 | 1198 | 499 | 9 |
| Loblolly pine | 1343624 | 653959 | 289893 | 164302 | 84445 | 49119 | 36767 | 25677 | 17314 | 9941 | 5861 | 6010 | 336 |
| Redcedar | 41329 | 25221 | 9375 | 2893 | 2043 | 898 | 344 | 318 | 116 | 71 | 25 | 26 | ... |
| Cypress | 10197 | 2130 | 1133 | 2347 | 1950 | 710 | 609 | 419 | 354 | 200 | 120 | 217 | 8 |
| Total softwoods | 1934392 | 891853 | 424470 | 233784 | 141939 | 84175 | 62616 | 41667 | 25826 | 13625 | 7286 | 6798 | 353 |
| Select white oaks | 103024 | 56422 | 19216 | 9008 | 6602 | 3732 | 2292 | 1850 | 1589 | 890 | 586 | 774 | 64 |
| Select red oaks | 82871 | 56914 | 8743 | 5994 | 3129 | 2598 | 1508 | 1380 | 617 | 592 | 492 | 721 | 184 |
| Other white oaks | 371422 | 188676 | 63691 | 45757 | 27339 | 18453 | 11075 | 6232 | 4491 | 2380 | 1551 | 1582 | 194 |
| Other red oaks | 592310 | 346312 | 91931 | 46031 | 35076 | 24944 | 16437 | 11292 | 7883 | 4729 | 2851 | 4153 | 671 |
| Sweet pecan | 2220 | 1145 | ... | 401 | 183 | 184 | 120 | 72 | 33 | 41 | ... | 41 | ... |
| Water hickory | 16285 | 8268 | 3376 | 1115 | 1392 | 993 | 422 | 396 | 144 | 47 | 60 | 58 | 14 |
| Other hickories | 166458 | 108032 | 26191 | 12178 | 7301 | 5972 | 3260 | 1864 | 860 | 466 | 221 | 109 | 4 |
| Persimmon | 42875 | 31895 | 9678 | 672 | 303 | 223 | 49 | 45 | ... | ... | 10 | ... | ... |
| Hard maple | 7114 | 4881 | 1256 | 352 | 188 | 171 | 181 | 23 | 28 | 27 | ... | 7 | ... |
| Soft maple | 131969 | 88444 | 25666 | 9729 | 4860 | 1645 | 752 | 450 | 148 | 166 | 21 | 87 | ... |
| Boxelder | 5253 | 3867 | 532 | 466 | 142 | 208 | 27 | ... | ... | ... | 10 | ... | ... |
| Beech | 6058 | 2020 | 1030 | 274 | 358 | 507 | 444 | 478 | 360 | 227 | 117 | 223 | 19 |
| Sweetgum | 925876 | 597196 | 162506 | 77795 | 40514 | 23904 | 11506 | 6163 | 2780 | 1505 | 1053 | 869 | 85 |
| Blackgum | 237375 | 171008 | 33024 | 14852 | 8019 | 3780 | 2569 | 1737 | 1161 | 481 | 236 | 436 | 72 |
| Other gums/tupelos | 11318 | 2220 | 4806 | 1263 | 793 | 369 | 568 | 533 | 325 | 236 | 107 | 93 | 4 |
| White ash | 58479 | 46254 | 5663 | 2483 | 904 | 1116 | 784 | 626 | 349 | 191 | 45 | 60 | 2 |
| Other ashes | 101907 | 75732 | 11501 | 5549 | 3477 | 1972 | 1564 | 918 | 481 | 391 | 155 | 145 | 23 |
| Sycamore | 5007 | 2208 | 1069 | 331 | 446 | 329 | 173 | 84 | 103 | 17 | 40 | 176 | 31 |
| Cottonwood | 2057 | 543 | 543 | ... | 114 | 242 | 223 | 84 | 96 | 118 | 51 | 17 | 26 |
| Basswood | 5139 | 2690 | 2183 | ... | ... | 108 | ... | 69 | 28 | 36 | 20 | 6 | ... |
| Magnolia | 10465 | 8036 | 1065 | 150 | 113 | 315 | 192 | 242 | 170 | 109 | 20 | 50 | 4 |
| Sweetbay | 42096 | 29170 | 8364 | 1884 | 1273 | 775 | 352 | 145 | 47 | 37 | 41 | 8 | ... |
| Willow | 9674 | 6850 | 1162 | 453 | 316 | 459 | 152 | 130 | 67 | 26 | ... | 51 | 8 |
| Black walnut | 2434 | 1698 | ... | 88 | 242 | 223 | 121 | 40 | ... | ... | 10 | 9 | 3 |
| Black cherry | 15883 | 11604 | 2817 | 788 | 548 | 85 | 29 | ... | ... | 12 | ... | ... | ... |
| American elm | 46059 | 28732 | 8847 | 3601 | 1645 | 1327 | 714 | 536 | 255 | 137 | 119 | 131 | 13 |
| Other elms | 457972 | 342695 | 68321 | 23109 | 11827 | 5803 | 2978 | 1681 | 912 | 360 | 157 | 122 | 8 |
| River birch | 13429 | 7180 | 1609 | 2216 | 1152 | 378 | 355 | 174 | 146 | 88 | 52 | 79 | ... |
| Hackberry | 69726 | 33730 | 19732 | 7217 | 3965 | 1787 | 1325 | 934 | 518 | 288 | 111 | 121 | ... |
| Other locusts | 10494 | 6930 | 1066 | 863 | 671 | 370 | 383 | 68 | 69 | 51 | 10 | 15 | ... |
| Sassafras | 78064 | 62005 | 12695 | 2481 | 557 | 170 | 97 | 42 | 17 | ... | ... | ... | ... |
| Dogwood | 144129 | 116289 | 24732 | 2562 | 494 | 51 | ... | ... | ... | ... | ... | ... | ... |
| Holly | 87452 | 64463 | 15481 | 5061 | 1584 | 535 | 245 | 20 | 54 | ... | 10 | ... | ... |
| Other commercial | 67181 | 50121 | 12099 | 3148 | 1221 | 257 | 175 | 69 | 38 | 53 | ... | ... | ... |
| Total hardwoods | 3930077 | 2564228 | 650599 | 287874 | 166748 | 103986 | 61071 | 38376 | 23765 | 13701 | 8156 | 10142 | 1430 |
| Noncommercial | 658800 | 484456 | 117775 | 35896 | 11330 | 4601 | 2471 | 1112 | 636 | 397 | 50 | 76 | ... |
| All species | 6523269 | 3940537 | 1192844 | 557553 | 320018 | 192762 | 126158 | 81155 | 50227 | 27723 | 15493 | 17016 | 1783 |

Table 32 – *Number of growing-stock trees on timberland by detailed species and diameter class, East Texas, 1986*

| Species | All classes | Diameter class (inches at breast height) 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Thousand trees* | | | | | | | | | | |
| Longleaf pine | 7079 | 2015 | 1187 | 1208 | 1185 | 844 | 439 | 127 | 49 | 23 | ... |
| Slash pine | 32925 | 14376 | 11536 | 3881 | 1983 | 806 | 288 | ... | 33 | 22 | ... |
| Shortleaf pine | 152323 | 39819 | 38319 | 27280 | 21489 | 13325 | 7248 | 3192 | 1156 | 490 | 5 |
| Loblolly pine | 382089 | 154105 | 80778 | 47123 | 35984 | 25434 | 17156 | 9779 | 5750 | 5707 | 274 |
| Redcedar | 4846 | 2278 | 1358 | 622 | 221 | 223 | 97 | 26 | 12 | 9 | ... |
| Cypress | 6233 | 2215 | 1642 | 630 | 582 | 379 | 322 | 164 | 120 | 170 | 8 |
| Total softwoods | 585495 | 214808 | 134819 | 80745 | 61444 | 41010 | 25549 | 13288 | 7121 | 6422 | 288 |
| Select white oaks | 23120 | 7172 | 5927 | 3448 | 2059 | 1578 | 1247 | 711 | 488 | 447 | 42 |
| Select red oaks | 13752 | 4742 | 2532 | 2229 | 1212 | 1148 | 454 | 471 | 346 | 504 | 113 |
| Other white oaks | 77527 | 27995 | 19487 | 13298 | 7179 | 4011 | 2742 | 1386 | 771 | 636 | 21 |
| Other red oaks | 114934 | 34507 | 27930 | 20096 | 11448 | 8352 | 5498 | 3149 | 1765 | 1994 | 194 |
| Sweet pecan | 561 | 96 | 119 | 126 | 88 | 72 | 15 | 13 | ... | 33 | ... |
| Water hickory | 2725 | 539 | 593 | 863 | 279 | 229 | 95 | 37 | 31 | 53 | 6 |
| Other hickories | 19201 | 6503 | 4461 | 4066 | 2034 | 1272 | 499 | 195 | 109 | 61 | ... |
| Persimmon | 691 | 268 | 229 | 124 | 49 | 22 | ... | ... | ... | ... | ... |
| Hard maple | 390 | 263 | ... | 82 | 31 | ... | 14 | ... | ... | ... | ... |
| Soft maple | 9480 | 5465 | 2723 | 770 | 303 | 150 | 34 | 27 | ... | 8 | ... |
| Boxelder | 681 | 365 | 142 | 174 | ... | ... | ... | ... | ... | ... | ... |
| Beech | 1541 | 122 | 214 | 237 | 271 | 298 | 206 | 112 | 48 | 32 | ... |
| Sweetgum | 130667 | 57784 | 34230 | 20038 | 9450 | 4944 | 1930 | 1035 | 753 | 453 | 50 |
| Blackgum | 22232 | 8442 | 6224 | 2994 | 1859 | 1245 | 813 | 306 | 141 | 208 | ... |
| Other gums/tupelos | 2508 | 472 | 701 | 292 | 276 | 311 | 224 | 149 | 65 | 17 | ... |
| White ash | 4197 | 1570 | 646 | 724 | 578 | 366 | 184 | 91 | 11 | 27 | ... |
| Other ashes | 9588 | 3148 | 2834 | 1374 | 908 | 721 | 267 | 239 | 54 | 34 | 9 |
| Sycamore | 1356 | 331 | 312 | 244 | 173 | 63 | 70 | 17 | 40 | 102 | 4 |
| Cottonwood | 945 | ... | 114 | 242 | 223 | 84 | 96 | 118 | 51 | 12 | 4 |
| Basswood | 22 | ... | ... | ... | ... | 22 | ... | ... | ... | ... | ... |
| Magnolia | 806 | 150 | 56 | 244 | 117 | 121 | 76 | 25 | 11 | 6 | ... |
| Sweetbay | 2492 | 663 | 1066 | 454 | 244 | 41 | 16 | ... | ... | 8 | ... |
| Willow | 1096 | 453 | 158 | 232 | 89 | 89 | 51 | 12 | ... | 7 | 4 |
| Black walnut | 285 | ... | 59 | 105 | 121 | ... | ... | ... | ... | ... | ... |
| Black cherry | 610 | 165 | 403 | ... | 29 | ... | ... | 12 | ... | ... | ... |
| American elm | 5676 | 2390 | 1128 | 828 | 543 | 391 | 167 | 110 | 64 | 52 | 4 |
| Other elms | 30092 | 14576 | 7692 | 4089 | 1690 | 1209 | 505 | 229 | 49 | 54 | ... |
| River birch | 3044 | 1276 | 981 | 291 | 175 | 136 | 111 | 25 | 10 | 39 | ... |
| Hackberry | 7490 | 3158 | 2031 | 979 | 538 | 328 | 261 | 128 | 19 | 47 | ... |
| Other locusts | 1566 | 762 | 417 | 163 | 77 | 44 | 52 | 26 | 10 | 15 | ... |
| Sassafras | 1955 | 1420 | 315 | 123 | 63 | 18 | 17 | ... | ... | ... | ... |
| Dogwood | 798 | 726 | 73 | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 3419 | 2305 | 792 | 209 | 93 | 20 | ... | ... | ... | ... | ... |
| Other commercial | 647 | 459 | 147 | 41 | ... | ... | ... | ... | ... | ... | ... |
| Total hardwoods | 496094 | 188288 | 124736 | 79180 | 42202 | 27283 | 15645 | 8623 | 4836 | 4850 | 452 |
| All species | 1081589 | 403096 | 259555 | 159926 | 103646 | 68293 | 41194 | 21911 | 11957 | 11272 | 739 |

**Table 33** – *Volume of growing-stock trees on timberland by species and diameter class, East Texas, 1986*

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | *Million cubic feet* | | | | | | | | | | |
| Longleaf pine | 108.0 | 6.4 | 8.0 | 16.3 | 25.1 | 23.5 | 16.6 | 6.8 | 3.3 | 1.9 | ... |
| Slash pine | 239.5 | 39.4 | 73.2 | 50.5 | 40.6 | 22.7 | 10.4 | ... | 1.5 | 1.3 | ... |
| Shortleaf pine | 2275.6 | 111.9 | 277.2 | 388.3 | 471.2 | 423.5 | 313.3 | 166.8 | 81.7 | 41.3 | 0.4 |
| Loblolly pine | 5176.6 | 366.8 | 488.0 | 601.4 | 737.0 | 759.6 | 703.4 | 519.7 | 388.7 | 561.9 | 50.0 |
| Redcedar | 25.8 | 4.4 | 6.2 | 5.0 | 2.9 | 3.4 | 2.4 | 0.9 | 0.3 | 0.3 | ... |
| Cypress | 95.1 | 4.3 | 14.9 | 9.0 | 9.7 | 10.9 | 12.5 | 8.1 | 7.6 | 16.6 | 1.5 |
| Total softwoods | 7920.7 | 533.2 | 867.5 | 1070.5 | 1286.5 | 1243.6 | 1058.7 | 702.3 | 483.1 | 623.3 | 51.9 |
| Select white oaks | 290.0 | 19.7 | 33.2 | 35.6 | 35.1 | 36.3 | 40.1 | 29.5 | 24.4 | 30.8 | 5.4 |
| Select red oaks | 205.7 | 12.8 | 13.6 | 21.8 | 20.6 | 27.5 | 13.9 | 19.0 | 18.1 | 41.4 | 17.1 |
| Other white oaks | 587.4 | 58.8 | 92.0 | 107.6 | 91.0 | 70.8 | 65.0 | 40.2 | 28.3 | 31.8 | 1.8 |
| Other red oaks | 1338.3 | 88.2 | 152.8 | 201.4 | 180.2 | 187.9 | 162.3 | 125.6 | 85.2 | 132.5 | 22.3 |
| Sweet pecan | 7.8 | 0.3 | 0.8 | 1.0 | 1.1 | 1.3 | 0.3 | 0.4 | ... | 2.5 | ... |
| Water hickory | 34.3 | 1.6 | 3.8 | 8.8 | 4.3 | 4.8 | 2.8 | 1.8 | 1.4 | 4.1 | 0.8 |
| Other hickories | 145.6 | 12.7 | 18.8 | 32.1 | 26.1 | 24.2 | 13.5 | 7.5 | 5.6 | 5.2 | ... |
| Persimmon | 4.0 | 0.6 | 1.1 | 1.2 | 0.7 | 0.3 | ... | ... | ... | ... | ... |
| Hard maple | 3.0 | 0.9 | ... | 0.9 | 0.7 | ... | 0.5 | ... | ... | ... | ... |
| Soft maple | 48.1 | 15.3 | 14.8 | 7.7 | 4.6 | 3.4 | 0.9 | 1.2 | ... | 0.3 | ... |
| Boxelder | 3.3 | 1.2 | 0.8 | 1.4 | ... | ... | ... | ... | ... | ... | ... |
| Beech | 31.1 | 0.3 | 1.0 | 2.7 | 3.6 | 7.3 | 6.2 | 5.1 | 2.9 | 2.0 | ... |
| Sweetgum | 1014.8 | 128.0 | 192.7 | 210.7 | 161.9 | 124.5 | 66.2 | 45.6 | 42.2 | 35.4 | 7.7 |
| Blackgum | 197.6 | 20.1 | 31.8 | 30.6 | 29.7 | 28.4 | 23.2 | 12.1 | 7.0 | 14.7 | ... |
| Other gums/tupelos | 37.1 | 1.2 | 3.5 | 2.8 | 4.7 | 7.4 | 7.0 | 6.4 | 3.2 | 0.9 | ... |
| White ash | 40.7 | 3.5 | 3.5 | 7.1 | 8.5 | 7.5 | 5.1 | 3.7 | 0.7 | 1.1 | ... |
| Other ashes | 88.1 | 7.2 | 15.9 | 14.6 | 14.5 | 15.7 | 7.5 | 8.2 | 2.1 | 1.8 | 0.7 |
| Sycamore | 25.2 | 1.1 | 1.8 | 2.3 | 3.2 | 1.0 | 2.8 | 0.3 | 1.9 | 10.3 | 0.4 |
| Cottonwood | 33.8 | ... | 1.4 | 4.2 | 7.8 | 3.3 | 4.7 | 7.0 | 3.5 | 1.2 | 0.7 |
| Basswood | 0.3 | ... | ... | ... | ... | 0.3 | ... | ... | ... | ... | ... |
| Magnolia | 11.9 | 0.4 | 0.4 | 2.3 | 1.6 | 2.7 | 2.5 | 1.1 | 0.6 | 0.5 | ... |
| Sweetbay | 18.3 | 2.0 | 6.5 | 4.0 | 3.6 | 1.0 | 0.5 | ... | ... | 0.7 | ... |
| Willow | 8.7 | 1.0 | 0.4 | 1.4 | 1.3 | 1.5 | 1.6 | 0.5 | ... | 0.5 | 0.6 |
| Black walnut | 2.5 | ... | 0.4 | 0.7 | 1.4 | ... | ... | ... | ... | ... | ... |
| Black cherry | 4.5 | 0.3 | 3.2 | ... | 0.5 | ... | ... | 0.5 | ... | ... | ... |
| American elm | 49.1 | 5.1 | 5.9 | 6.8 | 7.5 | 8.6 | 4.5 | 3.6 | 2.8 | 3.1 | 1.2 |
| Other elms | 182.8 | 31.3 | 39.0 | 36.0 | 25.7 | 24.1 | 13.4 | 7.8 | 2.1 | 3.3 | ... |
| River birch | 22.1 | 3.4 | 5.2 | 2.7 | 2.5 | 2.3 | 2.9 | 0.9 | 0.4 | 1.8 | ... |
| Hackberry | 54.2 | 7.2 | 9.7 | 7.8 | 7.1 | 6.6 | 7.5 | 4.5 | 1.0 | 2.8 | ... |
| Other locusts | 12.1 | 2.2 | 1.9 | 1.7 | 1.5 | 0.9 | 1.3 | 0.7 | 0.4 | 1.4 | ... |
| Sassafras | 7.2 | 2.8 | 1.8 | 1.2 | 0.9 | 0.2 | 0.3 | ... | ... | ... | ... |
| Dogwood | 1.5 | 1.3 | 0.3 | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 13.4 | 5.4 | 3.9 | 2.2 | 1.4 | 0.5 | ... | ... | ... | ... | ... |
| Other commercial | 1.4 | 0.7 | 0.4 | 0.2 | ... | ... | ... | ... | ... | ... | ... |
| Total hardwoods | 4526.0 | 436.5 | 662.1 | 761.5 | 653.4 | 600.2 | 7.5 | 333.0 | 234.0 | 330.0 | 58.8 |
| All species | 12446.7 | 969.7 | 1529.6 | 1832.0 | 1939.9 | 1843.8 | 1515.2 | 1035.3 | 717.1 | 953.4 | 110.7 |

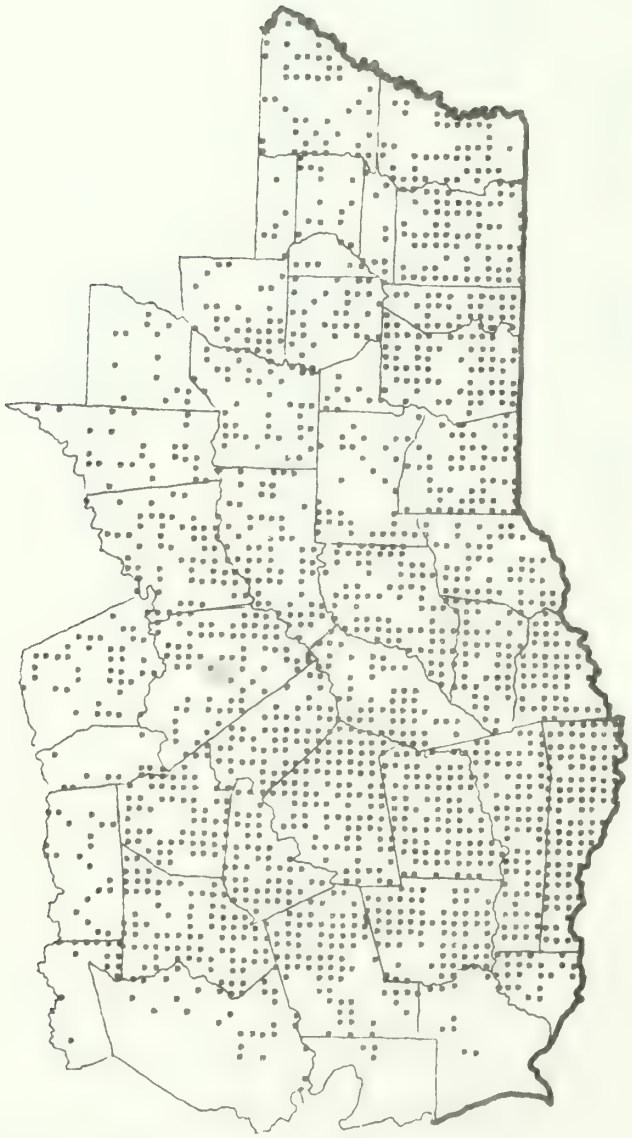
Table 34 – *Volume of growing stock in the saw-log portion of sawtimber trees on timberland by detailed species and diameter class, East Texas, 1986*

| Species | All classes | Diameter class (inches at breast height) 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | | | |
| Longleaf pine | 85.6 | 13.1 | 22.7 | 22.2 | 16.0 | 6.5 | 3.2 | 1.9 | ... |
| Slash pine | 110.8 | 40.7 | 36.7 | 21.1 | 9.7 | ... | 1.4 | 1.3 | ... |
| Shortleaf pine | 1734.7 | 322.5 | 432.7 | 401.8 | 299.1 | 160.6 | 78.1 | 39.5 | 0.4 |
| Loblolly pine | 4008.0 | 486.7 | 667.8 | 713.8 | 673.8 | 500.5 | 374.7 | 542.2 | 48.4 |
| Redcedar | 12.8 | 3.8 | 2.5 | 3.0 | 2.1 | 0.9 | 0.3 | 0.3 | ... |
| Cypress | 68.4 | 6.4 | 7.8 | 9.8 | 11.7 | 7.8 | 7.5 | 15.9 | 1.5 |
| Total softwoods | 6020.3 | 873.2 | 1170.3 | 1171.5 | 1012.4 | 676.4 | 465.2 | 601.1 | 50.3 |
| Select white oaks | 175.9 | ... | 28.3 | 31.2 | 34.9 | 26.8 | 22.0 | 27.3 | 5.4 |
| Select red oaks | 137.7 | ... | 14.4 | 23.7 | 12.5 | 17.1 | 16.4 | 37.7 | 15.9 |
| Other white oaks | 291.4 | ... | 76.6 | 64.2 | 58.1 | 36.3 | 26.0 | 28.4 | 1.7 |
| Other red oaks | 774.4 | ... | 137.4 | 162.0 | 143.6 | 110.9 | 76.9 | 123.0 | 20.5 |
| Sweet pecan | 5.0 | ... | 0.9 | 1.2 | 0.2 | 0.4 | ... | 2.4 | ... |
| Water hickory | 18.0 | ... | 3.7 | 4.1 | 2.6 | 1.7 | 1.3 | 3.8 | 0.8 |
| Other hickories | 71.5 | ... | 21.8 | 21.0 | 12.4 | 6.6 | 5.0 | 4.7 | ... |
| Persimmon | 0.9 | ... | 0.5 | 0.3 | ... | ... | ... | ... | ... |
| Hard maple | 1.0 | ... | 0.6 | ... | 0.4 | ... | ... | ... | ... |
| Soft maple | 8.2 | ... | 3.7 | 2.4 | 0.8 | 1.0 | ... | 0.3 | ... |
| Beech | 24.8 | ... | 2.9 | 6.6 | 5.9 | 4.9 | 2.6 | 1.8 | ... |
| Sweetgum | 401.9 | ... | 113.3 | 105.9 | 61.3 | 42.1 | 38.9 | 33.2 | 7.3 |
| Blackgum | 99.7 | ... | 22.4 | 24.4 | 21.1 | 11.3 | 6.8 | 13.8 | ... |
| Other gums/tupelos | 25.3 | ... | 3.2 | 6.2 | 6.1 | 5.7 | 3.1 | 0.9 | ... |
| White ash | 22.7 | ... | 6.9 | 6.5 | 4.5 | 3.2 | 0.6 | 1.0 | ... |
| Other ashes | 40.5 | ... | 10.3 | 12.8 | 6.3 | 7.0 | 1.8 | 1.7 | 0.6 |
| Sycamore | 18.3 | ... | 2.4 | 0.9 | 2.5 | 0.2 | 1.9 | 10.1 | 0.4 |
| Cottonwood | 27.0 | ... | 7.4 | 3.1 | 4.5 | 6.8 | 3.4 | 1.2 | 0.7 |
| Basswood | 0.3 | ... | ... | 0.3 | ... | ... | ... | ... | ... |
| Magnolia | 7.9 | ... | 1.2 | 2.5 | 2.0 | 1.1 | 0.6 | 0.5 | ... |
| Sweetbay | 4.6 | ... | 2.8 | 0.8 | 0.4 | ... | ... | 0.5 | ... |
| Willow | 5.1 | ... | 0.9 | 1.4 | 1.4 | 0.4 | ... | 0.5 | 0.5 |
| Black walnut | 1.2 | ... | 1.2 | ... | ... | ... | ... | ... | ... |
| Black cherry | 1.0 | ... | 0.5 | ... | ... | 0.5 | ... | ... | ... |
| American elm | 26.6 | ... | 5.8 | 7.6 | 3.6 | 3.0 | 2.5 | 3.0 | 1.2 |
| Other elms | 65.5 | ... | 21.1 | 20.8 | 11.6 | 7.1 | 2.1 | 2.8 | ... |
| River birch | 8.6 | ... | 1.8 | 1.8 | 2.3 | 0.6 | 0.3 | 1.8 | ... |
| Hackberry | 24.2 | ... | 5.7 | 5.3 | 6.2 | 3.5 | 1.0 | 2.5 | ... |
| Other locusts | 5.5 | ... | 1.2 | 0.9 | 1.1 | 0.7 | 0.4 | 1.2 | ... |
| Sassafras | 1.1 | ... | 0.7 | 0.2 | 0.3 | ... | ... | ... | ... |
| Holly | 1.6 | ... | 1.2 | 0.4 | ... | ... | ... | ... | ... |
| Total hardwoods | 2297.3 | ... | 500.8 | 518.3 | 406.6 | 298.9 | 213.8 | 303.9 | 55.0 |
| All species | 8317.6 | 873.2 | 1671.1 | 1689.8 | 1418.9 | 975.3 | 679.0 | 905.0 | 105.3 |

**Table 35** – *Volume of timber on timberland by species and class of timber, East Texas, 1986*

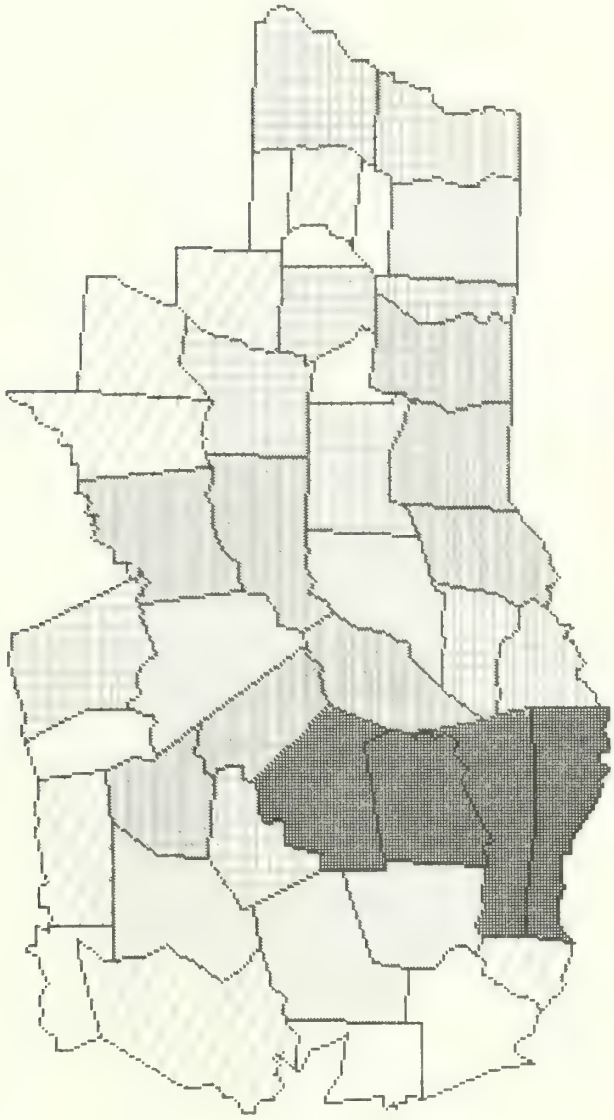
| Species | All live | Growing stock | Rough | Rotten |
|---|---|---|---|---|
| | | *Million cubic feet* | | |
| Longleaf pine | 110.2 | 108.0 | 2.3 | ... |
| Slash pine | 250.3 | 239.5 | 10.8 | ... |
| Shortleaf pine | 2320.0 | 2275.6 | 41.8 | 2.5 |
| Loblolly pine | 5274.9 | 5176.6 | 91.7 | 6.6 |
| Redcedar | 35.4 | 25.8 | 9.6 | ... |
| Cypress | 104.1 | 95.1 | 5.3 | 3.7 |
| Total softwoods | 8094.9 | 7920.7 | 161.5 | 12.8 |
| Select white oaks | 338.7 | 290.0 | 37.9 | 10.8 |
| Select red oaks | 248.6 | 205.7 | 29.5 | 13.4 |
| Other white oaks | 828.7 | 587.4 | 204.4 | 37.0 |
| Other red oaks | 1751.5 | 1338.3 | 316.4 | 96.8 |
| Sweet pecan | 10.9 | 7.8 | 3.1 | ... |
| Water hickory | 46.7 | 34.3 | 11.2 | 1.2 |
| Other hickories | 204.9 | 145.6 | 48.1 | 11.1 |
| Persimmon | 6.1 | 4.0 | 1.4 | 0.6 |
| Hard maple | 7.2 | 3.0 | 2.2 | 2.1 |
| Soft maple | 83.2 | 48.1 | 27.5 | 7.5 |
| Boxelder | 4.4 | 3.3 | 0.9 | 0.2 |
| Beech | 55.9 | 31.1 | 11.5 | 13.3 |
| Sweetgum | 1211.4 | 1014.8 | 157.9 | 38.7 |
| Blackgum | 262.1 | 197.6 | 48.1 | 16.3 |
| Other gums/tupelos | 56.2 | 37.1 | 12.7 | 6.3 |
| White ash | 55.7 | 40.7 | 11.3 | 3.7 |
| Other ashes | 119.1 | 88.1 | 24.2 | 6.8 |
| Sycamore | 33.3 | 25.2 | 5.9 | 2.3 |
| Cottonwood | 35.4 | 33.8 | ... | 1.6 |
| Basswood | 3.6 | 0.3 | 1.0 | 2.3 |
| Magnolia | 20.8 | 11.9 | 4.0 | 4.9 |
| Sweetbay | 29.1 | 18.3 | 8.6 | 2.2 |
| Willow | 14.5 | 8.7 | 4.6 | 1.2 |
| Black walnut | 5.3 | 2.5 | 2.7 | 0.1 |
| Black cherry | 6.8 | 4.5 | 2.3 | ... |
| American elm | 68.2 | 49.1 | 17.7 | 1.4 |
| Other elms | 253.8 | 182.8 | 67.2 | 3.7 |
| River birch | 31.4 | 22.1 | 8.4 | 1.0 |
| Hackberry | 101.2 | 54.2 | 42.2 | 4.9 |
| Other locusts | 18.0 | 12.1 | 5.2 | 0.7 |
| Sassafras | 10.4 | 7.2 | 3.2 | ... |
| Dogwood | 4.6 | 1.5 | 2.9 | 0.2 |
| Holly | 23.5 | 13.4 | 8.8 | 1.3 |
| Other commercial | 8.4 | 1.4 | 6.6 | 0.5 |
| Total hardwoods | 5959.5 | 4526.0 | 1139.4 | 294.1 |
| Noncommercial | 177.6 | ... | 177.6 | ... |
| All species | 14232.0 | 12446.7 | 1478.4 | 306.9 |

# EAST TEXAS TIMBERLAND PLOT LOCATIONS



# TOTAL TIMBERLAND BY COUNTY

(IN THOUSAND ACRES)

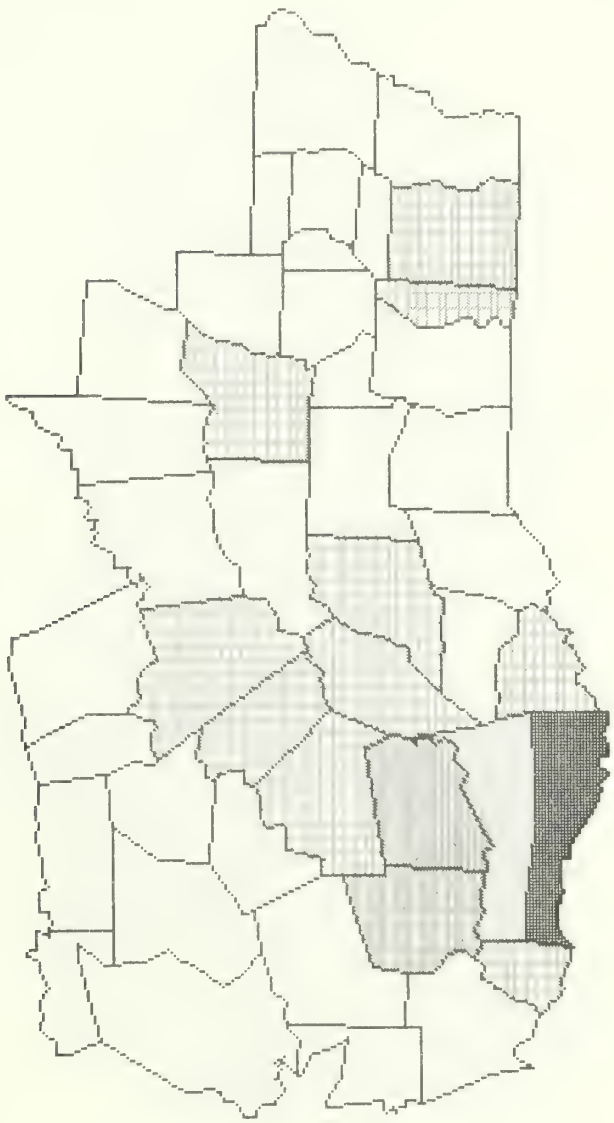


BELOW 100
100 TO 200
200 TO 300
300 TO 400
400 TO 500
OVER 500

# PERCENT TIMBERLAND BY COUNTY

# PERCENT TIMBERLAND BY COUNTY

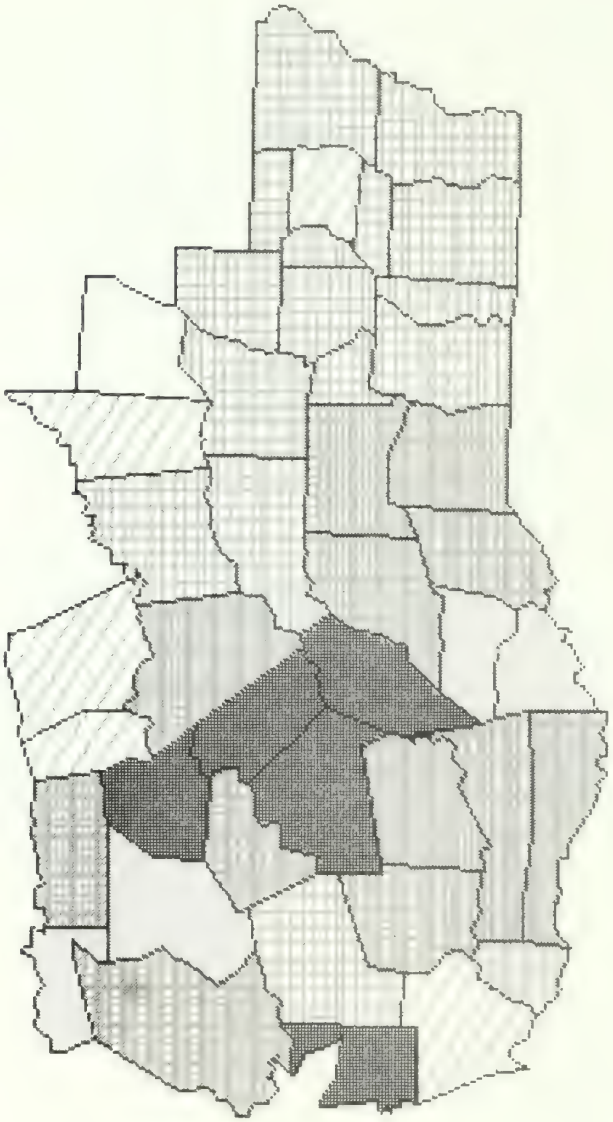
## LONGLEAF/SLASH FOREST TYPE



0
1 TO 5
5 to 10
10 TO 15
15 TO 20

# PERCENT TIMBERLAND BY COUNTY

## LOBLOLLY/SHORTLEAF FOREST TYPE



0
1 TO 15
15 TO 30
30 TO 45
45 TO 60
60 TO 70

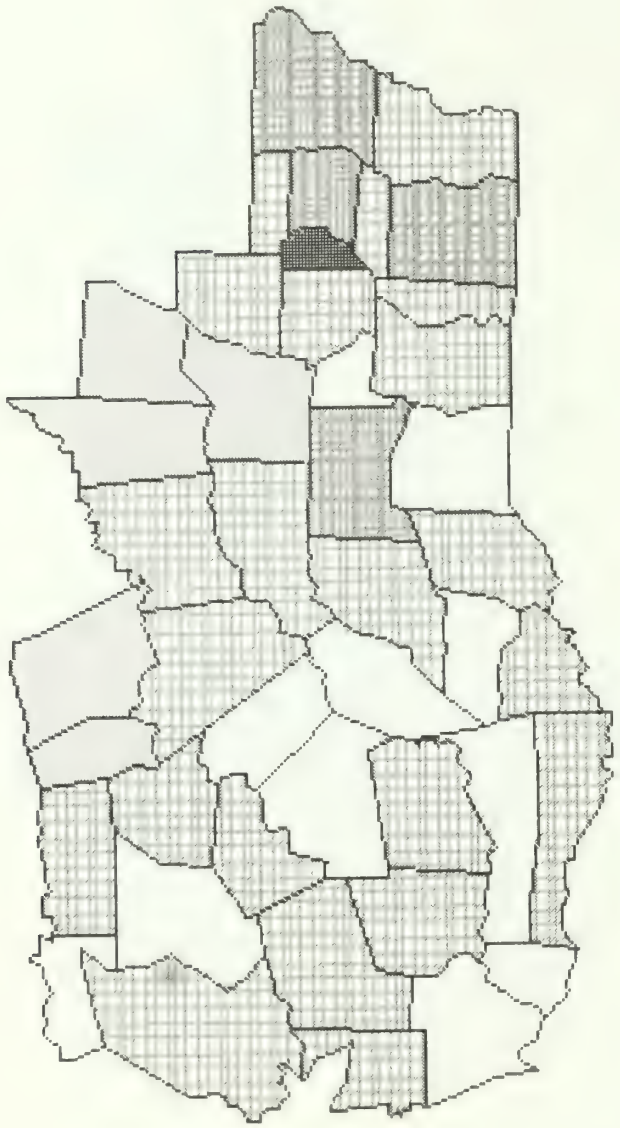
# PERCENT TIMBERLAND BY COUNTY

## OAK/PINE FOREST TYPE

0
1 TO 10
10 TO 20
20 TO 30
30 TO 40

# PERCENT TIMBERLAND BY COUNTY

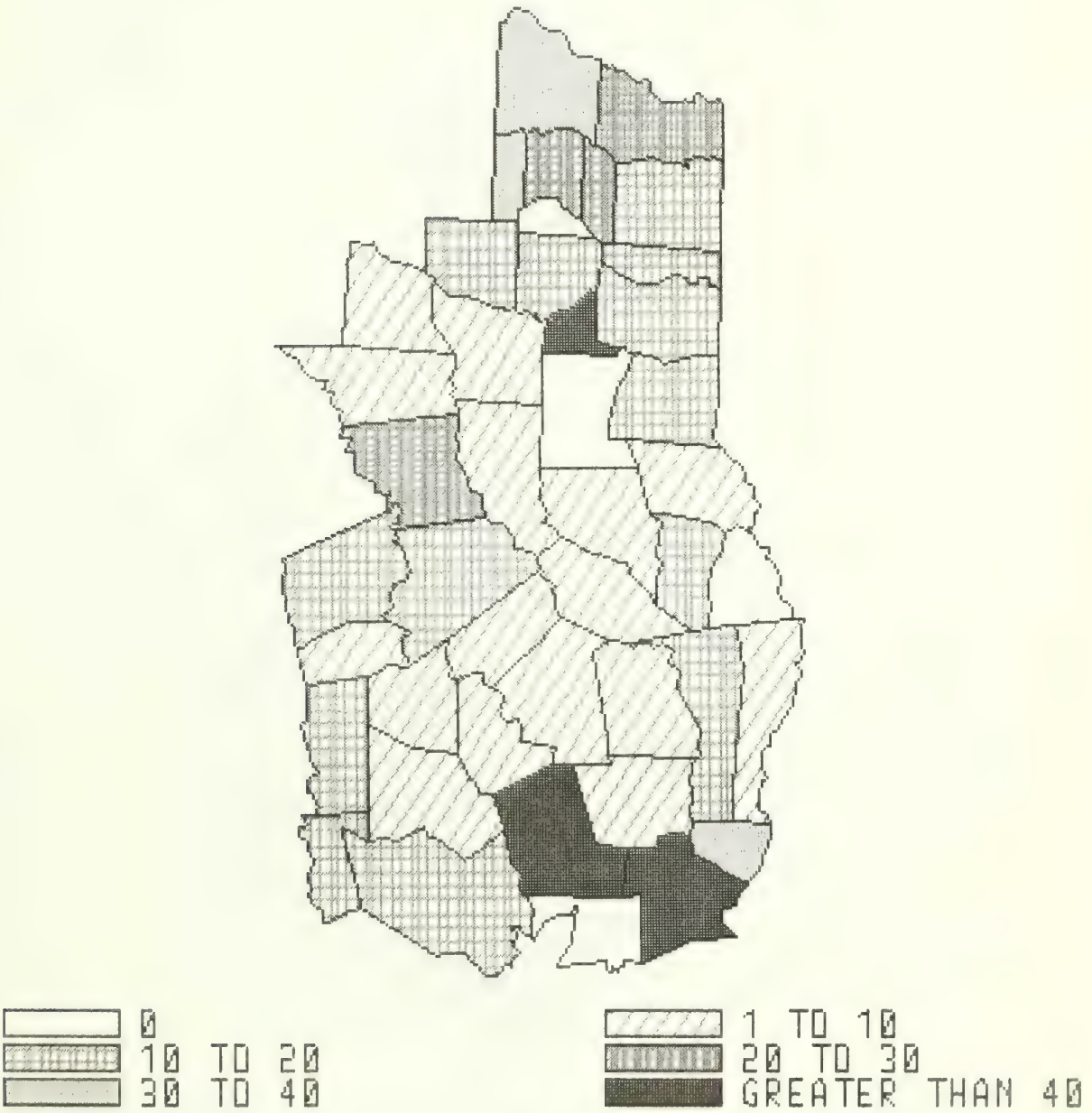
## OAK/HICKORY FOREST TYPE



1 TO 20
20 TO 40
40 TO 60
60 TO 80
80 TO 100

# PERCENT TIMBERLAND BY COUNTY

## OAK/GUM/CYPRESS FOREST TYPE

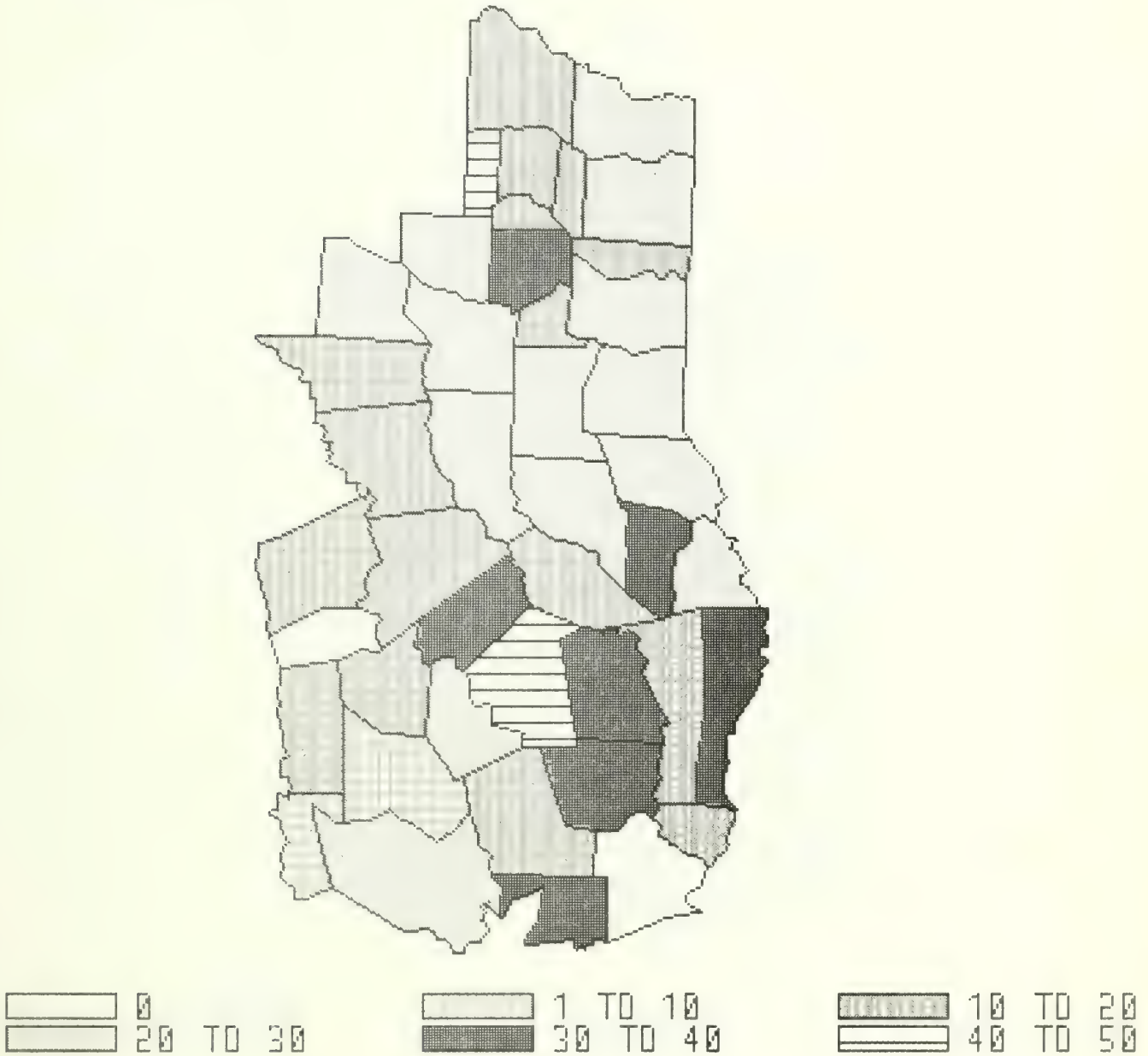


# PERCENT TIMBERLAND BY COUNTY

## ELM/ASH/COTTONWOOD FOREST TYPE

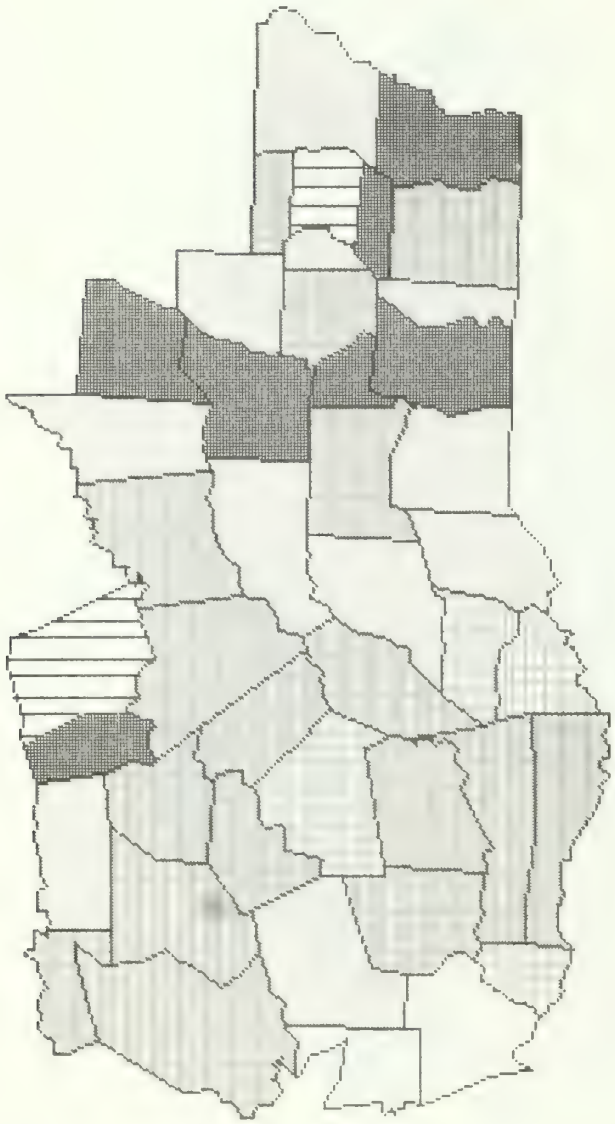
# PERCENT TIMBERLAND BY STAND SIZE CLASS

SAPLINGS



# PERCENT TIMBERLAND BY STAND SIZE CLASS

POLETIMBER



0
1 TO 15
15 TO 25
25 TO 35
35 TO 45
45 TO 50

# PERCENT TIMBERLAND BY STAND SIZE CLASS

SAWTIMBER

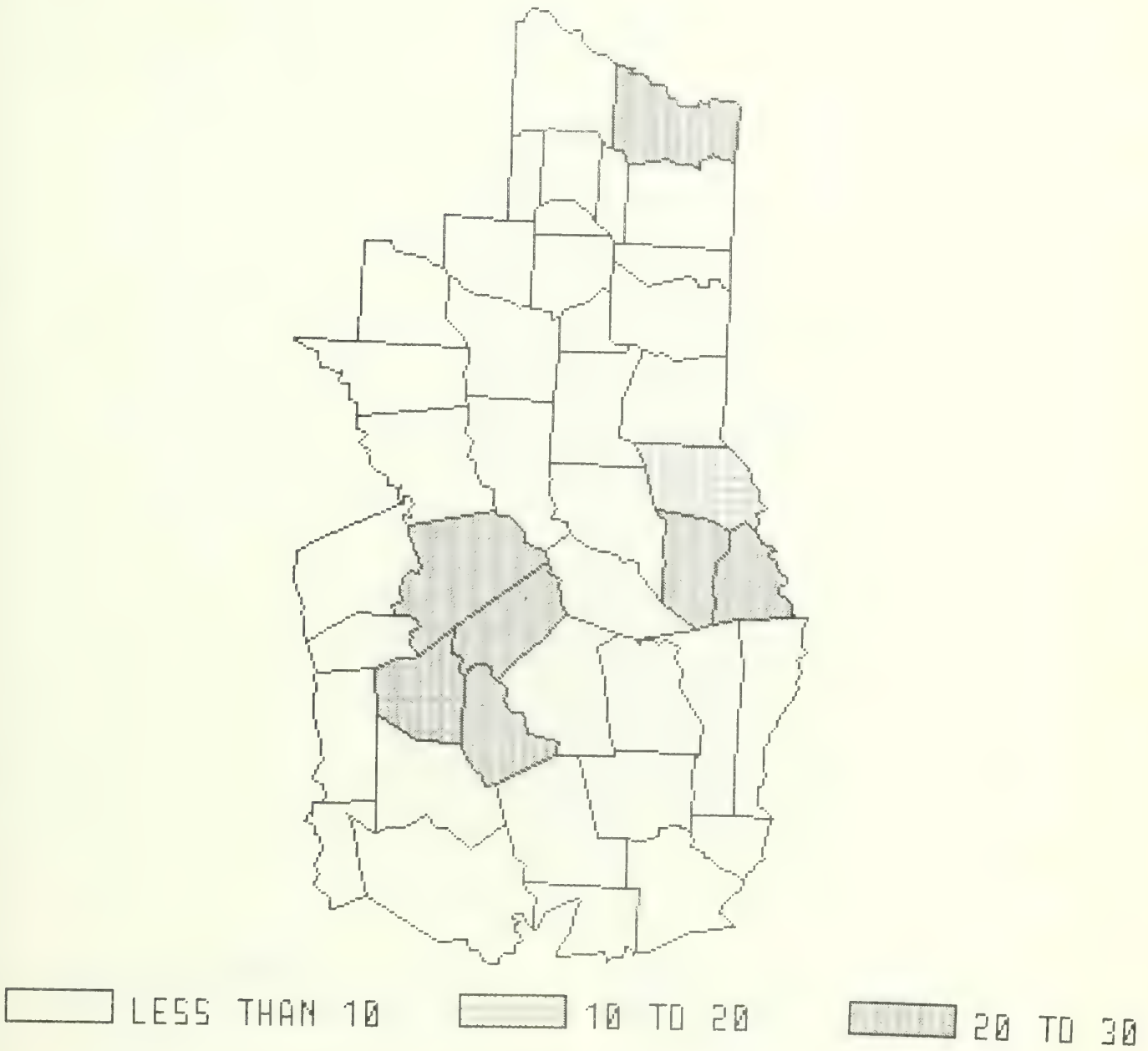
1 TO 30
30 TO 45
45 TO 60
60 TO 75
75 TO 90

# PERCENT TIMBERLAND BY OWNERSHIP CLASS

PRIVATE NONINDUSTRIAL

# PERCENT TIMBERLAND BY OWNERSHIP CLASS

PUBLIC LAND



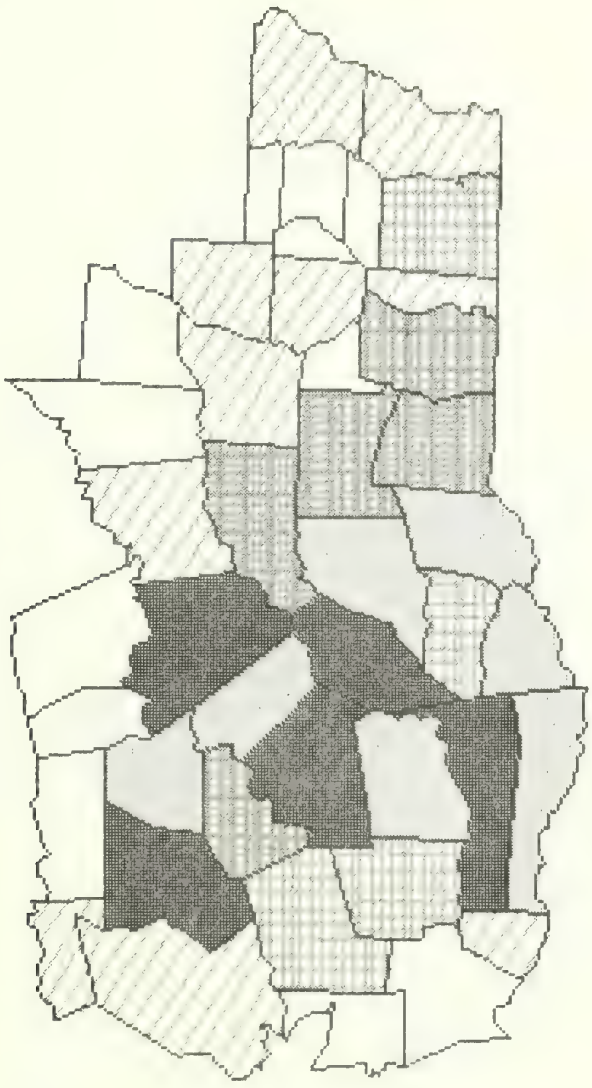
# PERCENT TIMBERLAND BY OWNERSHIP CLASS

FOREST INDUSTRY

LESS THAN 15
15 TO 30
30 TO 45
45 TO 60
60 TO 80

# SOFTWOOD GROWING STOCK VOLUME BY COUNTY

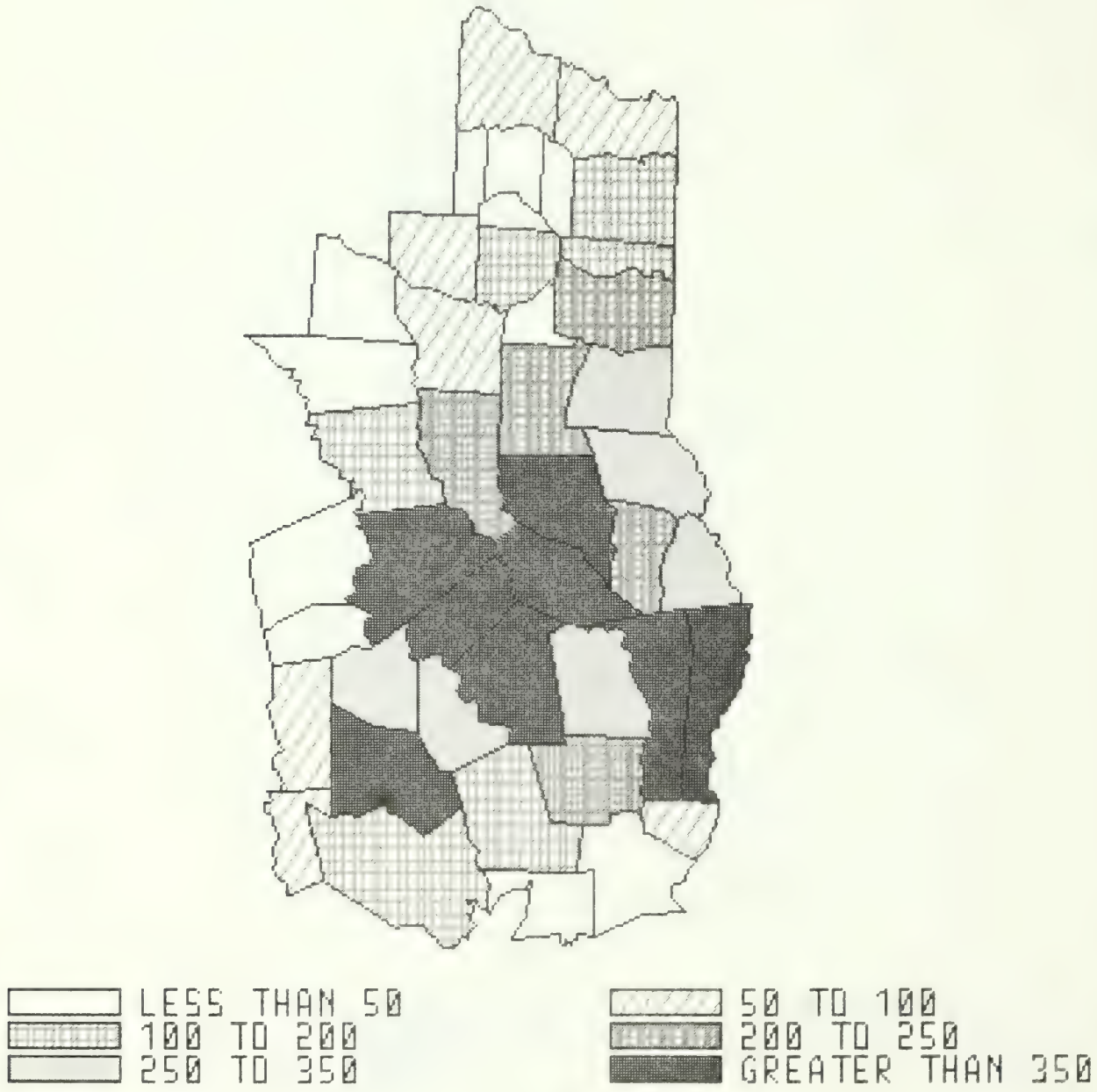
MILLION CUBIC FEET



LESS THAN 75
75 TO 150
150 TO 225
225 TO 300
300 TO 375
GREATER THAN 375

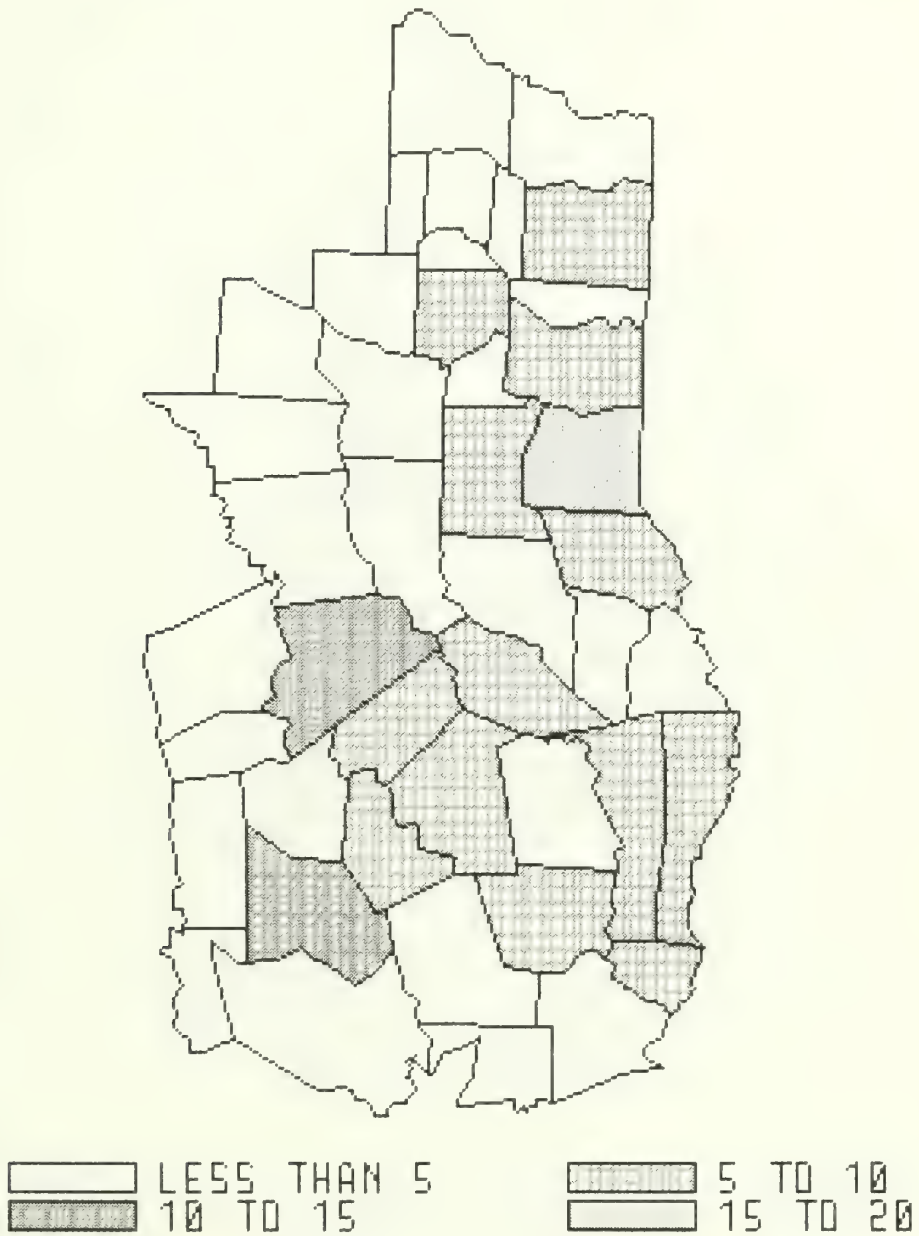
# HARDWOOD GROWING STOCK VOLUME BY COUNTY

MILLION CUBIC FEET



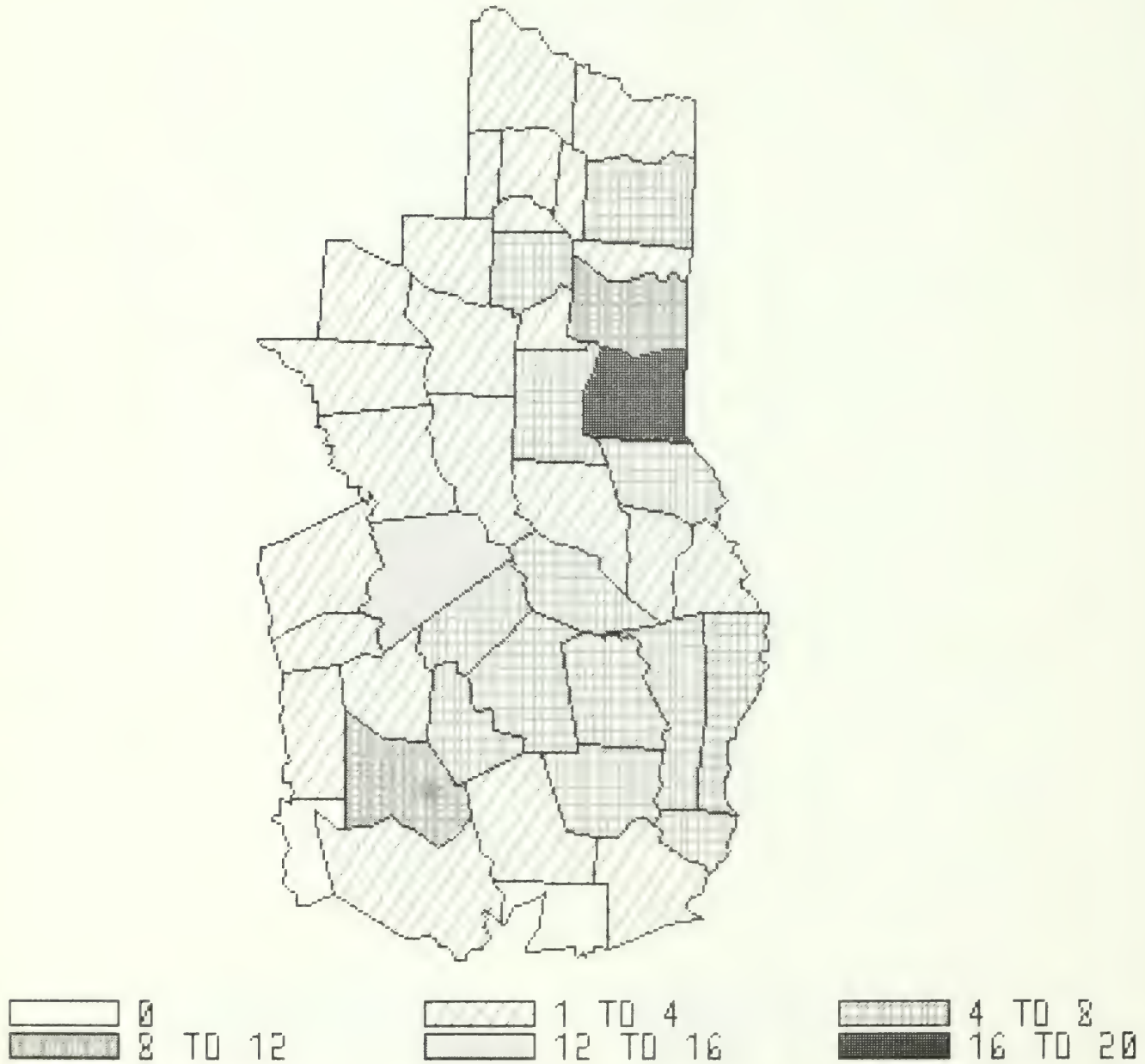
# SOFTWOOD ROUGH & ROTTEN VOLUME BY COUNTY

MILLION CUBIC FEET



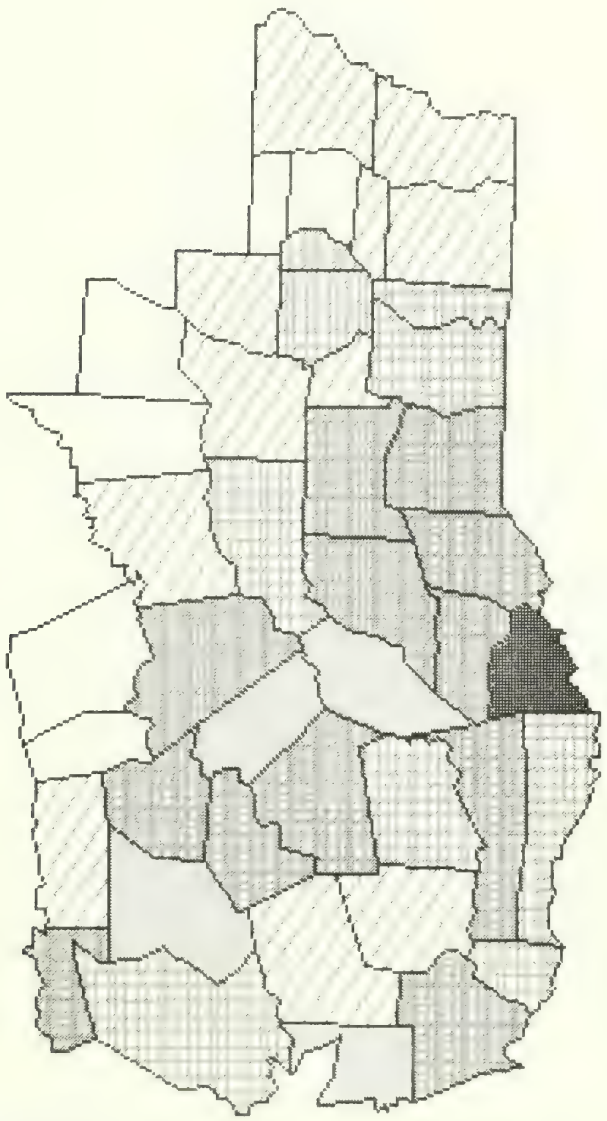
# HARDWOOD ROUGH & ROTTEN VOLUME BY COUNTY

MILLION CUBIC FEET



# AVERAGE SOFTWOOD GROWING STOCK VOLUME

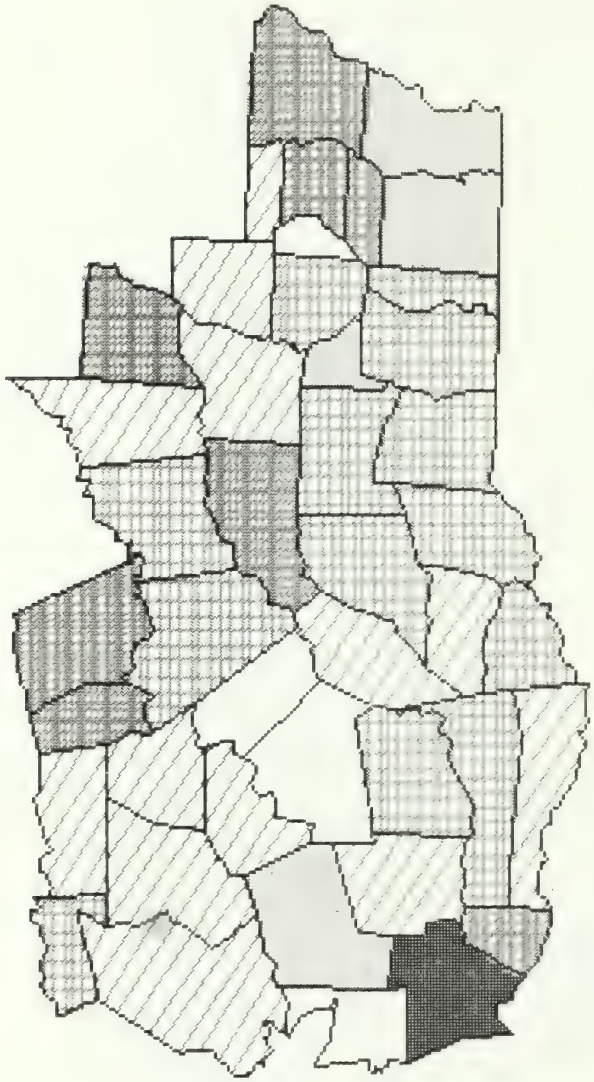
CUBIC FEET PER ACRE



LESS THAN 250
250 TO 500
500 TO 750
750 TO 1000
1000 TO 1250
OVER 1250

# AVERAGE HARDWOOD GROWING STOCK VOLUME

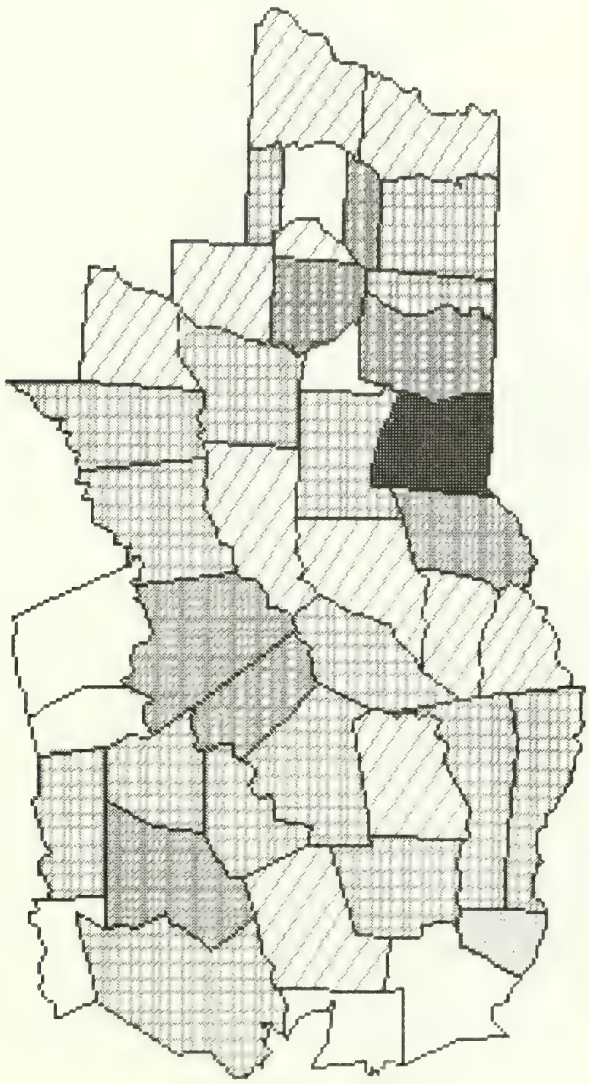
CUBIC FEET PER ACRE



LESS THAN 250
250 TO 350
350 TO 450
450 TO 550
550 TO 650
GREATER THAN 650

# AVERAGE SOFTWOOD ROUGH & ROTTEN VOLUME

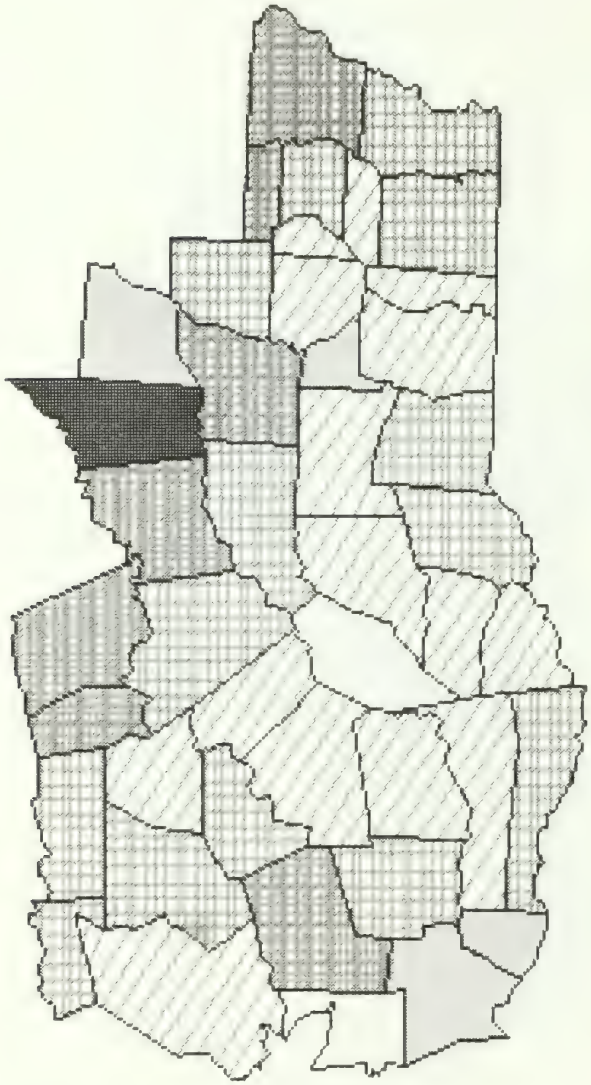
CUBIC FEET PER ACRE



LESS THAN 5
5 TO 10
10 TO 20
20 TO 35
35 TO 50
GREATER THAN 50

# AVERAGE HARDWOOD ROUGH & ROTTEN VOLUME

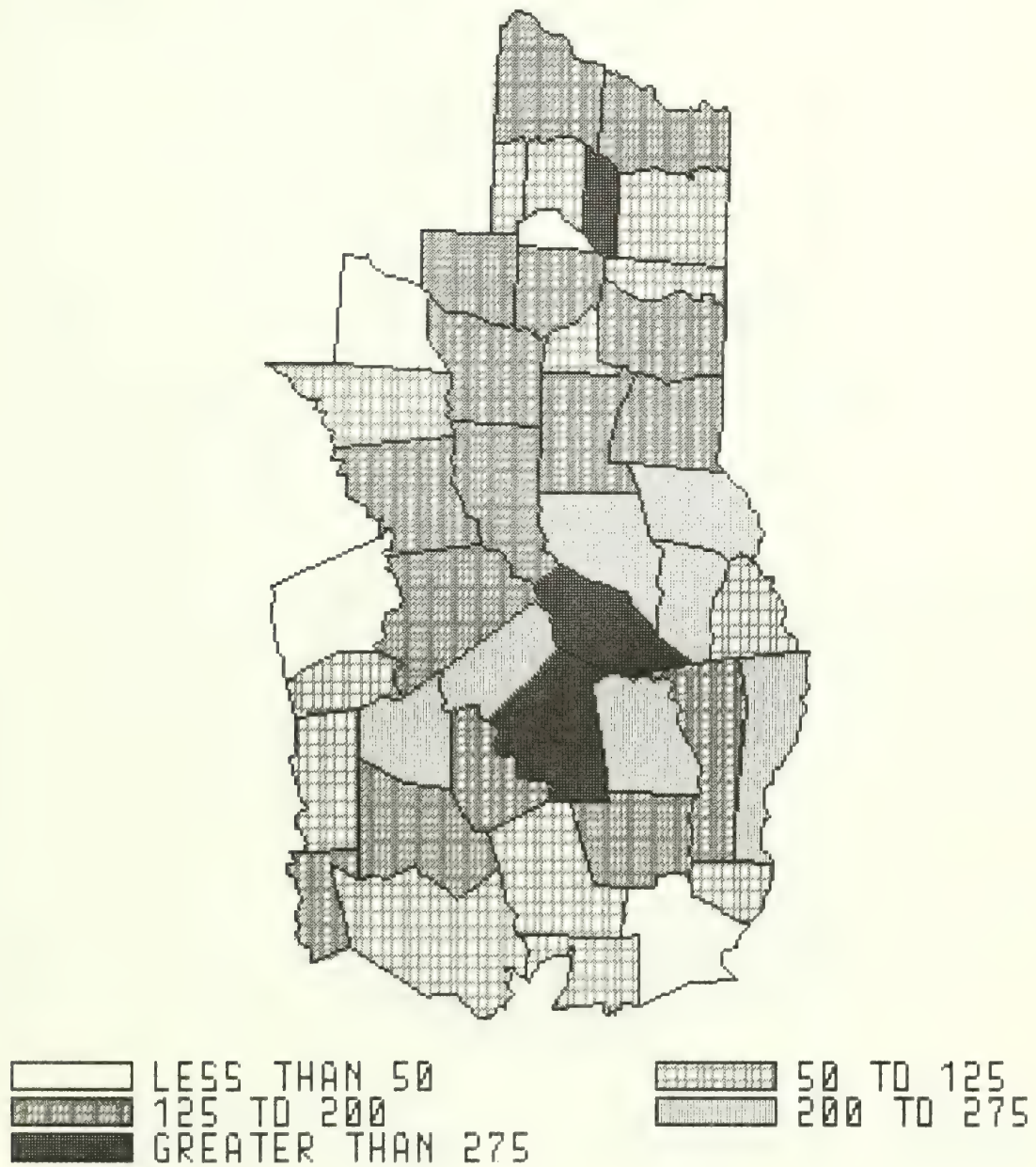
CUBIC FEET PER ACRE



LESS THAN 75
75 TO 125
125 TO 175
175 TO 225
225 TO 300
GREATER THAN 300

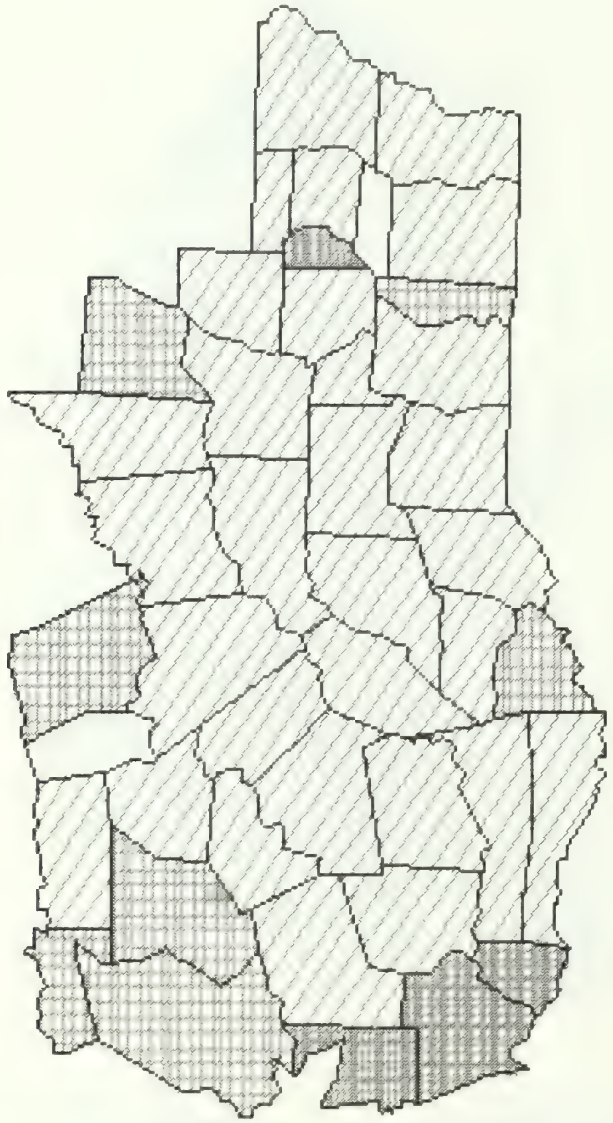
# AVERAGE NUMBER LIVE TREES/ACRE BY COUNTY

SOFTWOOD



# AVERAGE SOFTWOOD DBH BY COUNTY

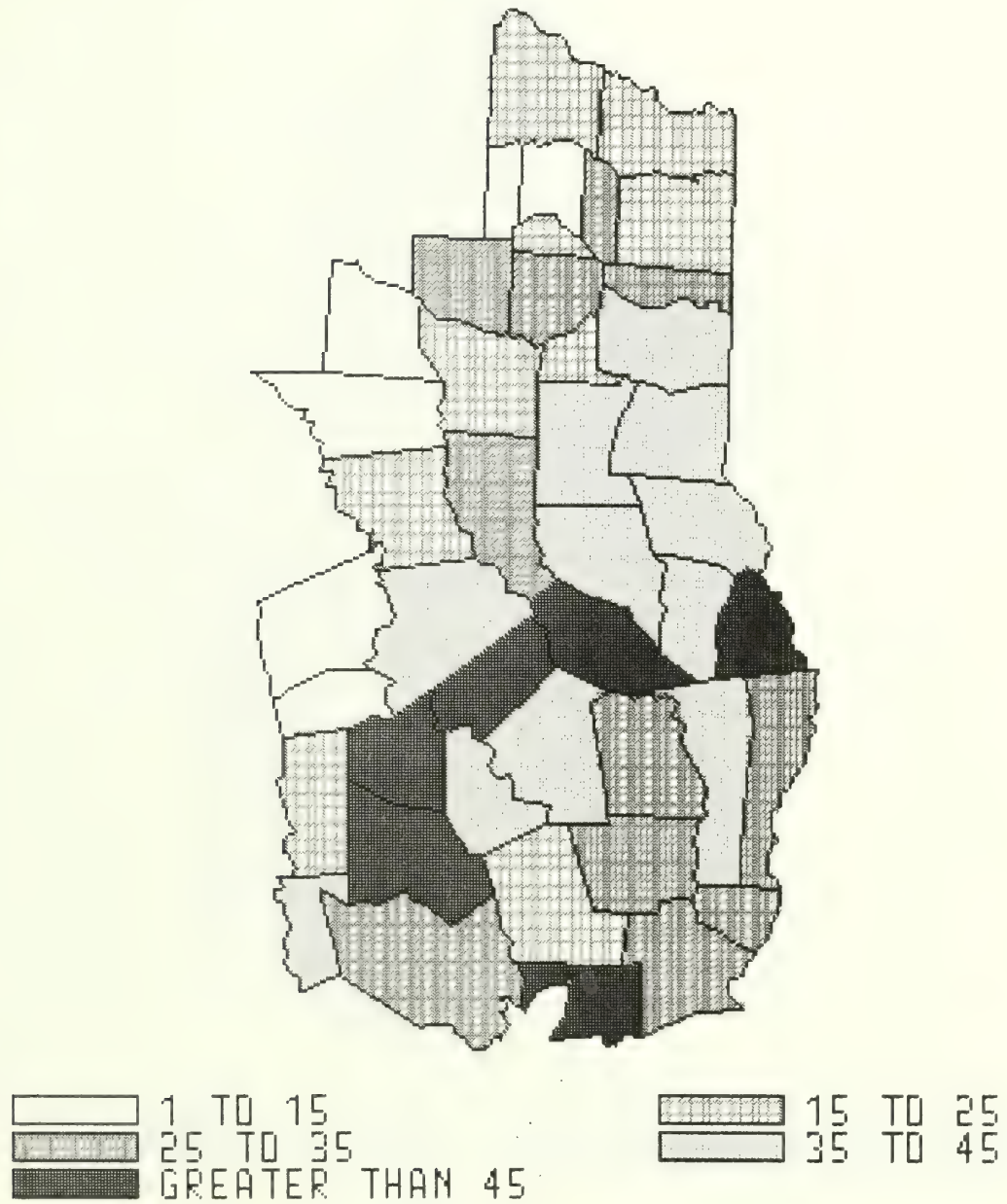
QUADRATIC MEAN DIAMETER



4 INCH CLASS
6 INCH CLASS
8 INCH CLASS
10 INCH CLASS

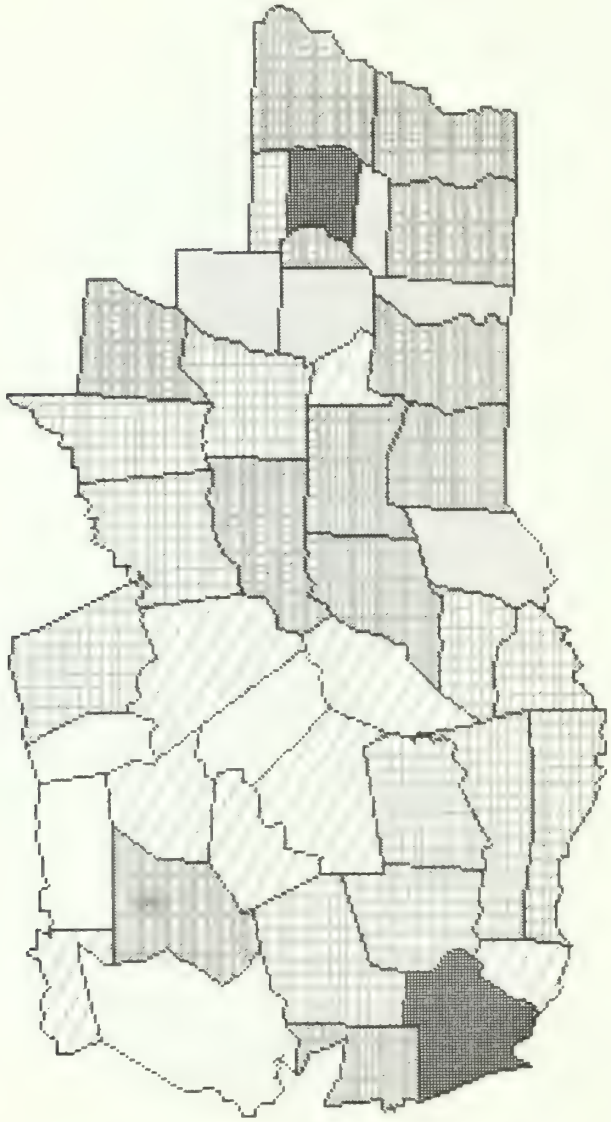
# AVERAGE SOFTWOOD BASAL AREA/ACRE BY COUNTY

IN SQUARE FEET



# AVERAGE NUMBER LIVE TREES/ACRE BY COUNTY

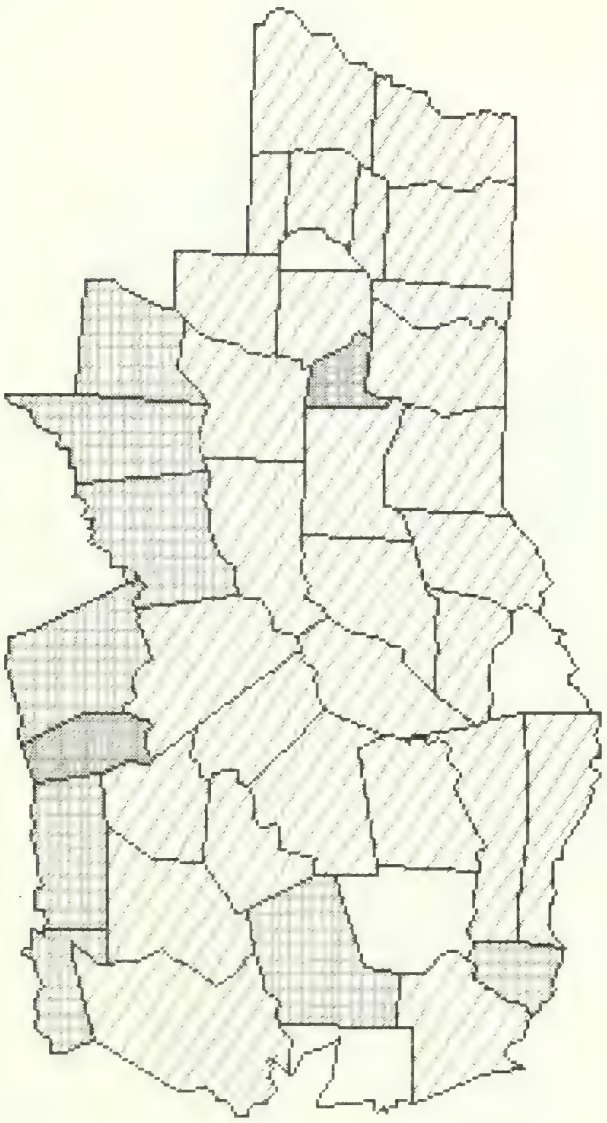
HARDWOOD



200 TO 275
275 TO 350
350 TO 425
425 TO 500
500 TO 575
575 TO 650

# AVERAGE HARDWOOD DBH BY COUNTY

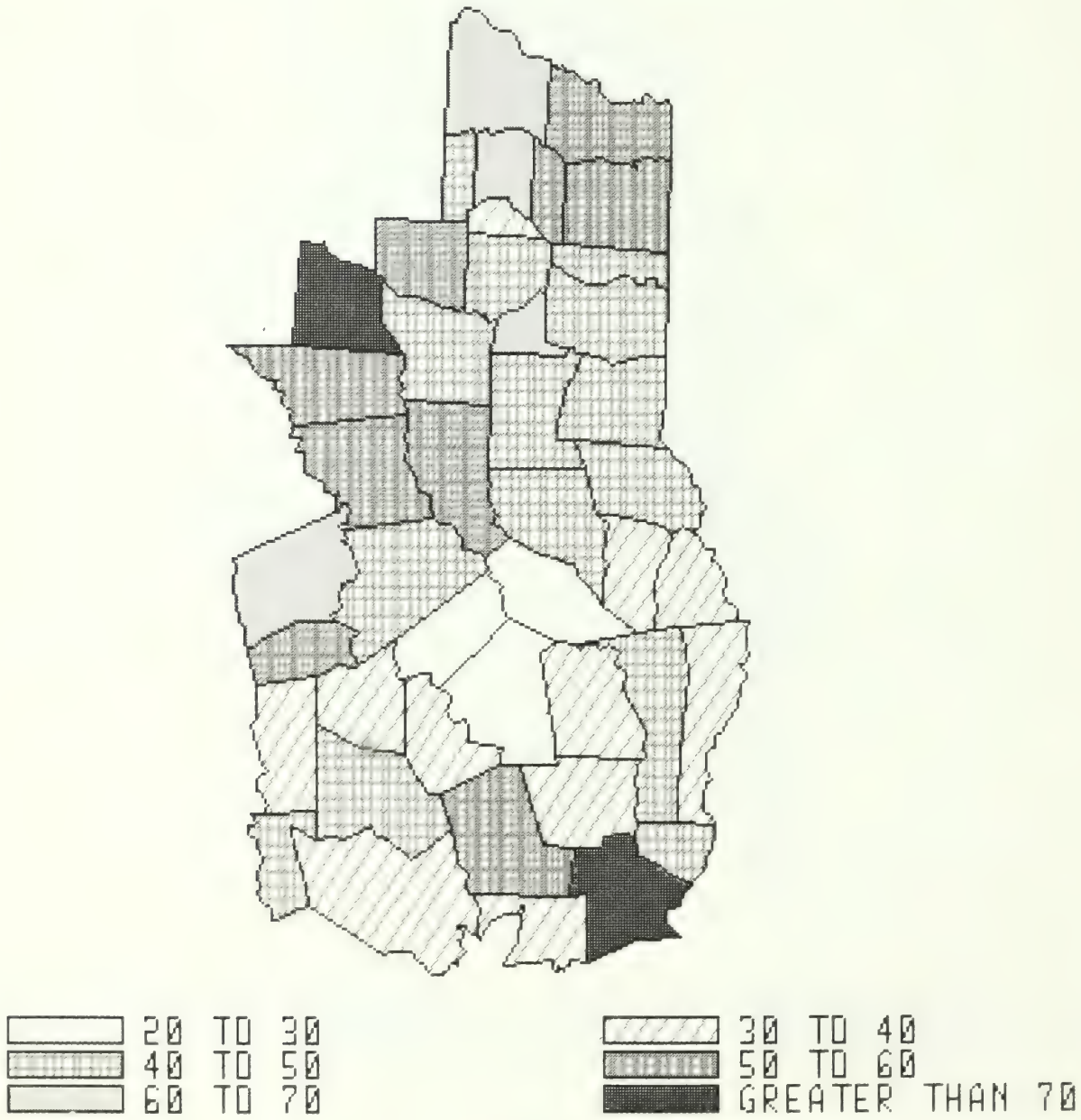
QUADRATIC MEAN DIAMETER



3 INCH CLASS
4 INCH CLASS
5 INCH CLASS
6 INCH CLASS

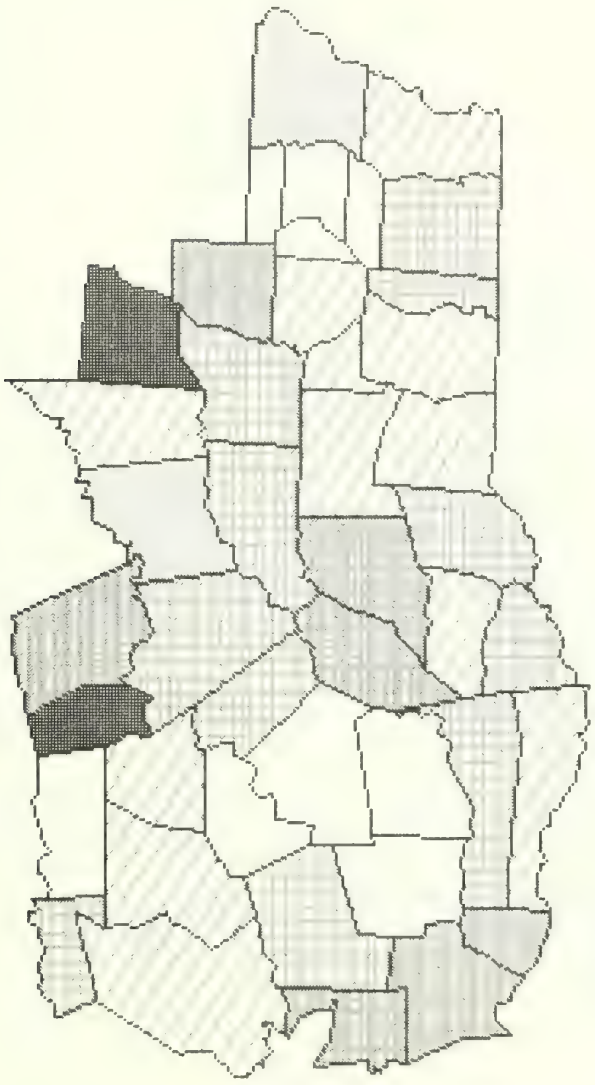
# AVERAGE HARDWOOD BASAL AREA/ACRE BY COUNTY

IN SQUARE FEET



# GROWTH/REMOVALS

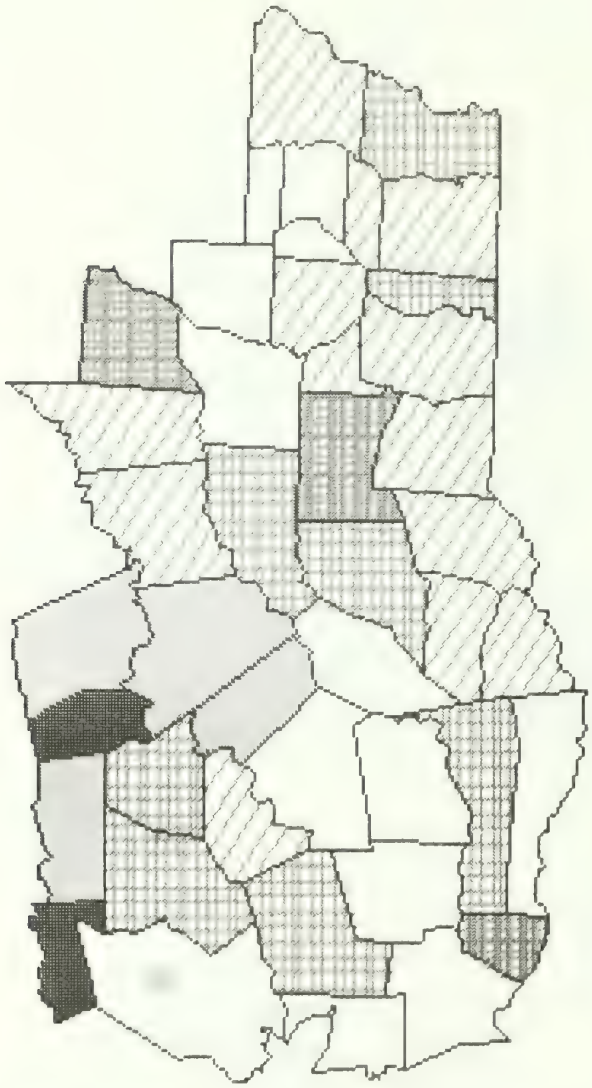
## SOFTWOOD



0.5 TO 0.74
1.0 TO 1.49
2.0 TO 2.99
0.74 TO 0.99
1.50 TO 1.99
GREATER THAN 3.0

# GROWTH/REMOVALS

## HARDWOOD



0.1 TO 0.99
1.0 TO 1.49
1.50 TO 1.99
2.0 TO 2.99
3.0 TO 3.99
GREATER THAN 4.0

Lang, Linda L. and Bertelson, Daniel F., Forest statistics for east Texas counties - 1986. Resourc. Bull. SO- 118 . New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1987 . 66 p.

Tabulates forest resource information from a new inventory of East Texas counties.

**Additional Keywords:** Area, volume, forest type, stand size, ownership.

☆U.S. GOVERNMENT PRINTING OFFICE:1987 -761 -086/ 60011

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Southern Forest
Experiment Station

New Orleans,
Louisiana

Resource Bulletin
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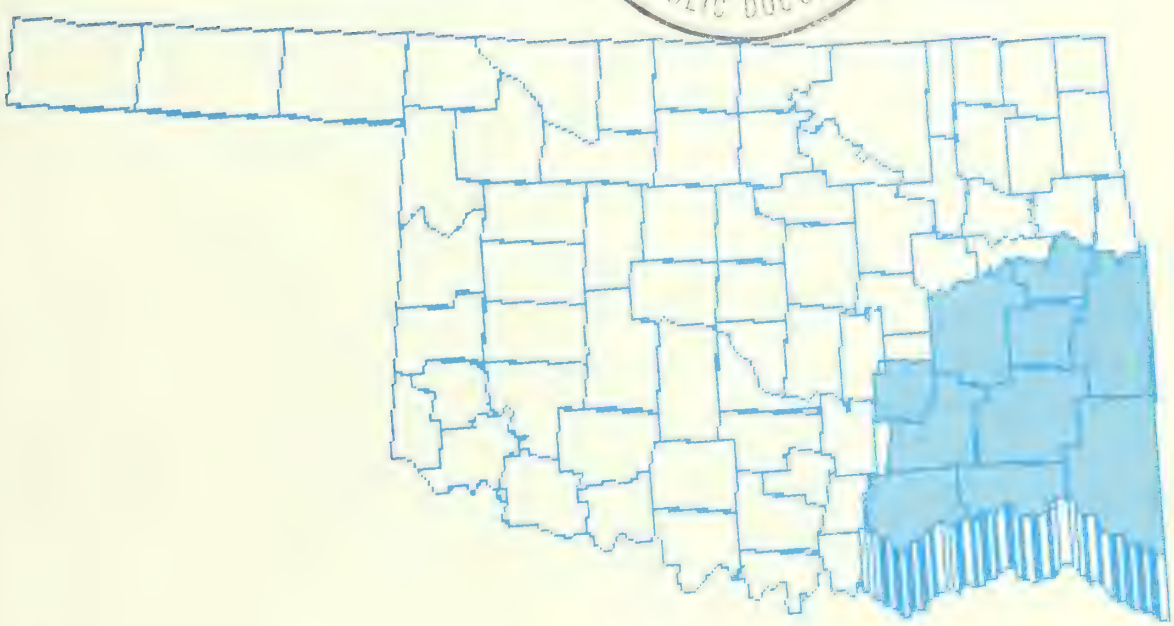
January 1987

# Forest Statistics for Southeast Oklahoma Counties - 1986

Richard A. Birdsey and Daniel F. Bertelson

PUBLIC DOCUMENTS



## SUMMARY

The Southern Forest Survey, an activity of the Southern Forest Experiment Station Forest Inventory and Analysis work unit, covers the states of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, east Texas and the island of Puerto Rico.

This survey is part of the nationwide Forest Survey originally authorized by the McSweeney-McNary Act of 1928. More recent legislation pertinent to the survey mission includes the Forest and Rangeland Renewable Resources Planning Act of 1974 and the Forest and Rangeland Renewable Resources Research Act of 1978. The survey mission is to develop, analyze, and maintain renewable forest resource information. This information is essential for formulation of forest policies and programs.

## ACKNOWLEDGMENTS

The Southern Station gratefully acknowledges the cooperation and assistance provided by the Oklahoma Division of Forestry and forest industries in collecting field data. Appreciation is also expressed for the cooperation of other public agencies and other private landowners in providing access to the sample locations.

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*Core tables are presented in response to the Southern Industrial Forestry Research Council's recommendations. These tables are identical among Forest Inventory and Analysis units in the eastern United States.

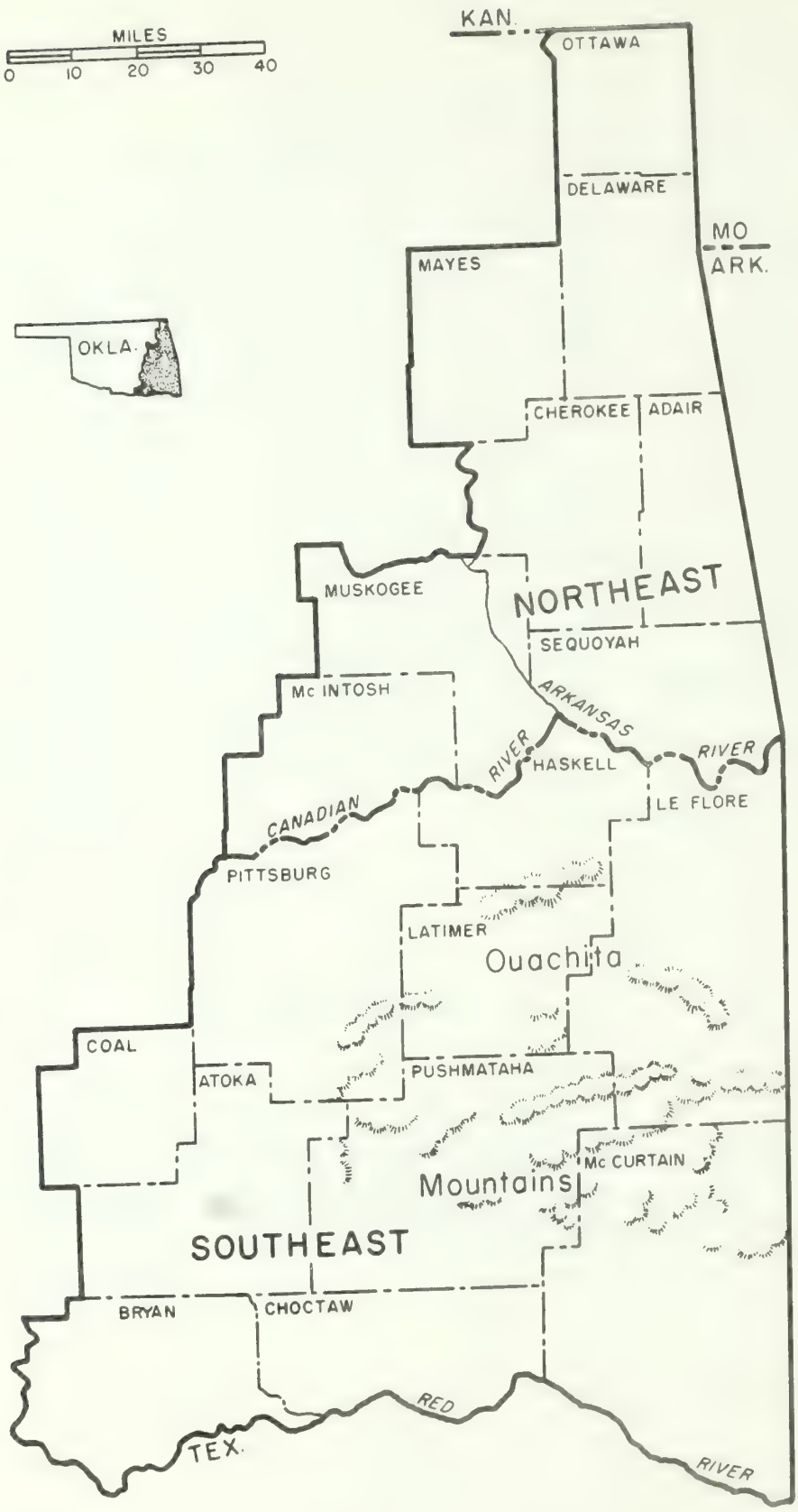



**Figure 1.--The Forest Survey Regions of East Oklahoma.**

# Forest Statistics for Southeast Oklahoma Counties - 1986

Richard A. Birdsey and Daniel F. Bertelson

## INTRODUCTION

These tables were derived from data obtained during a 1986 inventory of 10 counties comprising the Southeast Unit of Oklahoma (fig. 1). All comparisons of the 1976 and 1986 forest statistics made in this Bulletin account for this change. The data on forest acreage and timber volume were secured by a systematic sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurement of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. At each forest location, per acre estimates were obtained from 10 Basal Area 37.5 point samples.

The sampling methods were developed to provide suitable estimates for east Oklahoma. Estimates for smaller areas are presented, but sampling error increases as the area considered decreases. Sampling errors given in Table I are based on one standard deviation or a probability of two chances out of three. To estimate the sampling error for a combination of counties one can use the following:

$$SE_g = \frac{SE_t \sqrt{X_t}}{\sqrt{X_g}}$$

where:

SE = standard error of estimate (expressed as a percent)
X = variable of interest (area or volume)
g = group of counties to be combined
t = total for the unit

**Table I** – *Sampling errors[1] for timberland, growing stock, and sawtimber, Southeast Oklahoma, 1986*

| County | Timberland | Growing stock | | | Sawtimber volume |
|---|---|---|---|---|---|
| | | Volume | Growth | Removals | |
| | | | *Percent* | | |
| Atoka[3] | 2.6 | 14.7 | 22.7 | 21.0 | 18.8 |
| Bryan | 1.7 | 19.9 | [2] | 35.9 | 23.1 |
| Choctaw | 2.7 | 13.9 | 19.5 | 15.6 | 17.6 |
| Haskell | 3.6 | [2] | [2] | ... | [2] |
| Latimer | 3.5 | 8.8 | 17.6 | 23.4 | 10.8 |
| Le Flore | 1.6 | 8.0 | 11.7 | 15.1 | 10.7 |
| McCurtain | 0.9 | 8.7 | 9.8 | 9.4 | 11.2 |
| Pittsburg | 4.8 | 20.9 | [2] | [2] | 24.3 |
| Pushmataha | 1.6 | 6.3 | 8.8 | 13.2 | 8.3 |
| All counties | 0.8 | 5.1 | 6.2 | 6.8 | 6.7 |

[1] By random-sampling formula.
[2] Sampling error greater than 50.
[3] Coal included in Atoka.

## HIGHLIGHTS

### Timberland Area

The southeastern region of Oklahoma is 55 percent forested. Most of the forest land is classified as timberland capable of growing at least 20 cubic feet of wood each year. The area of timberland has increased from 3,246 to 3,481 thousand acres since 1976. The area of woodland and reserved timberland has remained constant at about 390 thousand acres. The increase in timberland is the result of additions from cropland and pasture.

Timberland owned by forest industry increased by 6 percent to 1,052 thousand acres. Other private owners gained 143 thousand acres of timberland, an increase of 8 percent.

All of the forest type groups except elm-ash-cottonwood gained in area. The loblolly-shortleaf pine group gained 100 thousand acres. Within this group, pine plantations increased from 44 to 264 thousand acres. An additional 253 thousand acres in the oak-pine and hardwood type groups had evidence of artificial regeneration, but were not classified as pine plantations because hardwoods comprised more than 50 percent of the stocking of live trees. Pines will eventually outgrow the hardwood competition on much of this acreage, most of which has been planted in the last 10 years.

There has been a significant increase in the area of nonstocked timberland, from 118 thousand acres in 1976 to 301 thousand acres in 1986. This is the result of clearcut harvesting without adequate regeneration. Most of the nonstocked timberland is owned by private individuals.

### Number of Trees

There have been some significant changes in the number of live softwood trees by diameter class between 1976 and 1986. The number of live softwood trees in the 2-inch class declined by about 20 percent, in contrast with large increases in the 4- and 6-inch classes. Declines are also significant in the 8- and 10-inch classes, while the 12- through 16-inch classes showed little change.

The hardwood stand tables showed fairly large declines in the number of live trees in the 2-inch and 12-inch diameter classes. The other diameter classes showed little change between surveys.

### Timber Volume

The volume of softwood growing stock declined slightly to 955 million cubic feet between 1976 and 1986. This contrasts with a 37-percent increase reported between 1966 and 1976. The volume of softwood sawtimber increased 3 percent to 3,520 million board feet between 1976 and 1986.

The volume of hardwood growing stock increased slightly to 725 million cubic feet between 1976 and 1986. The 1966 survey of Southeast Oklahoma did not include Bryan county, but the volume of hardwood growing stock in the other counties changed very little between 1966 and 1976. The volume of hardwood sawtimber increased by 5 percent to 1,833 million board feet between 1976 and 1986.

### Growth, Removals, and Mortality

Average net annual growth of softwood growing stock has declined from 54 to 44 million cubic feet since 1976. At the same time average annual removals of softwood growing stock increased from 47 to 51 million cubic feet. Since softwood removals now exceed growth, the inventory is declining. The excess of softwood removals over growth has occurred entirely on forest industry timberland.

Average net annual growth of hardwood growing stock declined from 44 million cubic feet to 21 million cubic feet. Average annual removals of hardwood growing stock increased from 14 to 25 million cubic feet. The current excess of hardwood removals over growth involves timberland owned by forest industry and farmers.

An increase in mortality has contributed to the decline in net annual growth. Average annual mortality of softwood growing stock increased from 2 to 3 million cubic feet, and average annual mortality of hardwood growing

stock increased from 5 to 11 million cubic feet. The principal cause of mortality was recorded as disease.

Tables 1-25 were developed to provide compatibility among Forest Inventory and Analysis Projects. Tables 26-36 are supplementary tables and may change from unit to unit or state to state to address specific resource issues.

## DEFINITION OF TERMS

*Average annual gross growth.* — Average annual net growth plus average annual mortality.

*Average net annual growth.* — Average net annual volume increase for the intersurvey period.

*Average annual mortality.* — Average annual sound-wood volume of live trees dying from natural causes.

*Average annual removals.* — Average annual net volume of growing-stock trees removed from the inventory by harvesting, cultural operations (such as timber stand improvement), land clearing, or changes in land use.

*Forest type.* — A classification of forest land based upon the species forming a plurality of live-tree stocking.

*Growing-stock trees.* — Live trees of commercial species. Rough and rotten trees are excluded.

*Growing-stock volume.* — The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches in diameter at breast height, from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or to the point where the central stem breaks into limbs.

*Noncommercial species.* — Tree species of typically small size, poor form, or inferior quality, which normally do not develop into trees suitable for industrial wood products.

*Poletimber trees.* — Growing-stock trees of commercial species at least 5.0 inches in diameter at breast height but smaller than sawtimber size.

*Rotten trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of rot.

*Reserved timberland.* — Productive public forest land withdrawn from timber utilization through statute or administrative regulations.

*Rough trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of roughness or poor form. Also included are all live trees of noncommercial species.

*Sawtimber trees.* — Live trees that are of commercial species, contain at least a 12-foot saw log, and meet regional specifications for freedom from defect. Softwoods must be at least 9.0 inches in diameter at breast height and hardwoods at least 11.0 inches in diameter at breast height.

*Sawtimber volume.* — Sound-wood volume of the saw-log portion of live sawtimber trees in board feet, International 1/4-inch rule and in cubic feet.

*Site class.* — A classification of forest land in terms of inherent capacity to grow crops of industrial wood.

*Stand-size class.* — A classification of forest land based on the size class of growing-stock trees on the sampled area; that is, sawtimber, poletimber, or sapling and seedling.

*Timberland.* — Forest land that is producing, or is capable of producing, crops of industrial wood and not withdrawn from timber utilization. Timberland is synonymous with "commercial forest land" in prior reports.

*Woodland.* — Forest land incapable of yielding crops of industrial wood because of adverse site conditions.

Table 1 – *Area by county and land class, Southeast Oklahoma, 1986*

| County | All land[1] | Forest land | | | | Nonforest land |
|---|---|---|---|---|---|---|
| | | Total | Timberland[2] | Woodland[3] | Reserved timberland | |
| | *Thousand acres* | | | | | |
| Atoka[4] | 967.2 | 390.6 | 318.1 | 63.6 | 8.9 | 576.6 |
| Bryan | 603.2 | 134.6 | 134.6 | ... | ... | 468.5 |
| Choctaw | 512.1 | 178.1 | 164.4 | 13.7 | ... | 334.0 |
| Coal[4] | ... | ... | ... | ... | ... | ... |
| Haskell | 400.6 | 168.6 | 153.3 | 15.3 | ... | 232.0 |
| Latimer | 466.6 | 344.1 | 305.2 | 39.0 | ... | 122.5 |
| Le Flore | 1029.0 | 645.8 | 639.8 | 6.0 | ... | 383.1 |
| McCurtain | 1216.4 | 892.5 | 878.5 | ... | 14.1 | 323.9 |
| Pittsburg | 882.4 | 395.7 | 177.4 | 218.3 | ... | 486.7 |
| Pushmataha | 910.8 | 722.0 | 710.1 | 11.9 | ... | 188.8 |
| All counties | 6988.2 | 3872.1 | 3481.2 | 367.9 | 23.0 | 3116.1 |

[1] From U.S. Bureau of the Census.

[2] Forest land (formerly termed commercial forest land) that is producing or capable of producing at least 20 cubic feet of industrial wood per acre per year. Includes areas that may be inaccessible or inoperable by current standards. Excludes reserved timberlands.

[3] Forest land incapable of producing 20 cubic feet of industrial wood per acre per year under natural conditions because of adverse site condition.

[4] Coal included in Atoka.

Table 2 – *Area of timberland by county and ownership class, Southeast Oklahoma, 1986*

| County | All ownerships | National forest | Misc. federal | State | County and municipal | Forest industry[1] | Farmer | Corporate[2] | Individu |
|---|---|---|---|---|---|---|---|---|---|
| | *Thousand acres* | | | | | | | | |
| Atoka[3] | 318.1 | ... | 12.7 | 6.4 | ... | ... | 171.8 | 6.4 | 120.9 |
| Bryan | 134.6 | ... | 7.1 | ... | ... | ... | 106.3 | ... | 21.3 |
| Choctaw | 164.4 | ... | 13.7 | ... | ... | ... | 77.6 | 4.6 | 68.5 |
| Haskell | 153.3 | ... | 10.2 | ... | ... | ... | 66.4 | 10.2 | 66.4 |
| Latimer | 305.2 | ... | ... | 26.0 | ... | ... | 32.5 | 6.5 | 240.2 |
| Le Flore | 639.8 | 175.0 | 18.1 | ... | ... | 108.6 | 60.4 | 6.0 | 271.6 |
| McCurtain | 878.5 | 67.6 | 39.4 | ... | ... | 596.9 | 78.8 | 5.6 | 90.1 |
| Pittsburg | 177.4 | ... | 6.8 | 6.8 | ... | ... | 68.2 | 20.5 | 75.0 |
| Pushmataha | 710.1 | ... | ... | 29.8 | ... | 346.1 | 101.4 | 23.9 | 208.8 |
| All counties | 3481.2 | 242.6 | 108.1 | 69.0 | ... | 1051.6 | 763.4 | 83.6 | 1162.9 |

[1] Includes land leased to forest industry.

[2] Indian land will be classed as corporate or individual as defined by the Bureau of Indian Affairs.

[3] Coal included in Atoka.

**Table 3** – *Area of timberland by county and forest type group, Southeast Oklahoma, 1986*

| County | Total | Forest type group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | | | | |
| | *Thousand acres* | | | | | | |
| Atoka[1] | 318.1 | ... | 57.3 | 19.1 | 140.0 | 76.3 | 25.4 |
| Bryan | 134.6 | ... | ... | ... | 113.4 | 21.3 | ... |
| Choctaw | 164.4 | ... | 13.7 | 18.3 | 109.6 | 22.8 | ... |
| Haskell | 153.3 | ... | ... | 25.5 | 86.9 | 25.5 | 15.3 |
| Latimer | 305.2 | ... | 58.4 | 84.4 | 155.8 | 6.5 | ... |
| Le Flore | 639.8 | 36.2 | 102.6 | 169.0 | 289.7 | 36.2 | 6.0 |
| McCurtain | 878.5 | 180.2 | 168.9 | 191.5 | 281.6 | 56.3 | ... |
| Pittsburg | 177.4 | ... | 20.5 | 20.5 | 95.5 | 40.9 | ... |
| Pushmataha | 710.1 | 47.7 | 244.6 | 190.9 | 214.8 | 11.9 | ... |
| All counties | 3481.2 | 264.2 | 666.0 | 719.2 | 1487.2 | 297.9 | 46.8 |

[1] Coal included in Atoka.

**Table 4** - *Area of timberland by county and stand-size class, Southeast Oklahoma, 1986*

| County | All classes | Stand-size class | | | Nonstocked[1] areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | *Thousand acres* | | | | |
| Atoka[2] | 318.1 | 76.3 | 114.5 | 101.8 | 25.4 |
| Bryan | 134.6 | 28.3 | 35.4 | 56.7 | 14.2 |
| Choctaw | 164.4 | 45.7 | 50.2 | 50.2 | 18.3 |
| Haskell | 153.3 | 20.4 | 51.1 | 35.8 | 46.0 |
| Latimer | 305.2 | 103.9 | 110.4 | 71.4 | 19.5 |
| Le Flore | 639.8 | 144.9 | 265.6 | 156.9 | 72.4 |
| McCurtain | 878.5 | 236.5 | 242.1 | 366.0 | 33.8 |
| Pittsburg | 177.4 | 34.1 | 40.9 | 54.6 | 47.8 |
| Pushmataha | 710.1 | 202.9 | 220.8 | 262.5 | 23.9 |
| All counties | 3481.2 | 893.0 | 1131.1 | 1156.0 | 301.2 |

[1] Timberland less than 16.7 percent stocked.

[2] Coal included in Atoka.

**Table 5** – *Area of timberland by county and site class, Southeast Oklahoma, 1986*

| County | All classes | Site class (cubic feet/acre/year) | | | | |
|---|---|---|---|---|---|---|
| | | >165 | 120-165 | 85-120 | 50-85 | <50 |
| | *Thousand acres* | | | | | |
| Atoka[1] | 318.1 | ... | ... | 12.7 | 165.4 | 140.0 |
| Bryan | 134.6 | ... | 7.1 | ... | 42.5 | 85.0 |
| Choctaw | 164.4 | ... | ... | 18.3 | 68.5 | 77.6 |
| Haskell | 153.3 | 5.1 | 10.2 | 5.1 | 46.0 | 86.9 |
| Latimer | 305.2 | ... | 6.5 | ... | 155.8 | 142.8 |
| Le Flore | 639.8 | ... | 12.1 | 24.1 | 325.9 | 277.6 |
| McCurtain | 878.5 | 11.3 | 78.8 | 191.5 | 506.8 | 90.1 |
| Pittsburg | 177.4 | ... | ... | 6.8 | 81.9 | 88.7 |
| Pushmataha | 710.1 | ... | 6.0 | 71.6 | 411.7 | 220.8 |
| All counties | 3481.2 | 16.4 | 120.7 | 330.1 | 1804.6 | 1209.5 |

[1] Coal included in Atoka.

**Table 6** – *Area of timberland by county and stocking classes of growing-stock trees, Southeast Oklahoma, 1986*

| County | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | >130 | 100-130 | 60-100 | 16.7-60 | <16.7 |
| | *Thousand acres* | | | | | |
| Atoka[1] | 318.1 | ... | 6.4 | 76.3 | 209.9 | 25.4 |
| Bryan | 134.6 | ... | 7.1 | 14.2 | 99.2 | 14.2 |
| Choctaw | 164.4 | ... | 4.6 | 22.8 | 118.7 | 18.3 |
| Haskell | 153.3 | ... | 5.1 | 15.3 | 86.9 | 46.0 |
| Latimer | 305.2 | ... | 26.0 | 71.4 | 188.3 | 19.5 |
| Le Flore | 639.8 | 18.1 | 42.3 | 235.4 | 271.6 | 72.4 |
| McCurtain | 878.5 | 16.9 | 107.0 | 473.0 | 247.8 | 33.8 |
| Pittsburg | 177.4 | ... | ... | 13.6 | 116.0 | 47.8 |
| Pushmataha | 710.1 | 6.0 | 83.5 | 340.1 | 256.6 | 23.9 |
| All counties | 3481.2 | 41.0 | 281.9 | 1262.3 | 1594.9 | 301.2 |

[1] Coal included in Atoka.

Table 7 – *Area of timberland by forest type and ownership class, Southeast Oklahoma, 1986*

| Forest type[1] | All ownerships | National forest | Other public | Forest industry | Forest industry-leased | Other private |
|---|---|---|---|---|---|---|
| | | | *Thousand acres* | | | |
| Loblolly-shortleaf pine | 930.2 | 106.2 | 35.4 | 492.6 | ... | 296.0 |
| Softwood total | 930.2 | 106.2 | 35.4 | 492.6 | ... | 296.0 |
| Oak-pine | 719.2 | 60.0 | 36.5 | 294.9 | ... | 327.8 |
| Oak-hickory | 1487.2 | 65.2 | 75.7 | 235.7 | 5.6 | 1105.0 |
| Oak-gum-cypress | 297.9 | 11.3 | 12.9 | 22.9 | ... | 250.9 |
| Elm-ash-cottonwood | 46.8 | ... | 16.6 | ... | ... | 30.2 |
| Hardwood total | 2551.1 | 136.4 | 141.7 | 553.4 | 5.6 | 1713.9 |
| All types | 3481.2 | 242.6 | 177.1 | 1046.0 | 5.6 | 2009.9 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

**Table 8** – *Area of timberland by ownership and stocking classes of growing-stock trees, Southeast Oklahoma, 1986*

| Ownership class | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | >130 | 100-130 | 60-100 | 16.7-60 | <16.7 |
| | | | *Thousand acres* | | | |
| National forest | 242.6 | 12.1 | 41.0 | 129.6 | 60.0 | ... |
| Other public | 177.1 | ... | 22.0 | 41.7 | 106.6 | 6.8 |
| Forest industry | 1046.0 | 17.2 | 145.2 | 543.3 | 305.7 | 34.5 |
| Forest industry-leased | 5.6 | 5.6 | ... | ... | ... | ... |
| Other private | 2009.9 | 6.0 | 73.6 | 547.7 | 1122.7 | 259.8 |
| All ownerships | 3481.2 | 41.0 | 281.9 | 1262.3 | 1594.9 | 301.2 |

Table 9 – *Area of timberland by forest type and stand-size class, Southeast Oklahoma, 1986*

| Forest type[1] | All classes | Stand-size class | | | Nonstocked[2] areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | *Thousand acres* | | | | |
| Loblolly-shortleaf pine | 930.2 | 399.2 | 224.8 | 306.2 | ... |
| Softwood total | 930.2 | 399.2 | 224.8 | 306.2 | ... |
| Oak-pine | 719.2 | 213.0 | 213.0 | 287.1 | 6.0 |
| Oak-hickory | 1487.2 | 156.3 | 583.3 | 499.7 | 247.9 |
| Oak-gum-cypress | 297.9 | 106.7 | 92.5 | 51.4 | 47.2 |
| Elm-ash-cottonwood | 46.8 | 17.8 | 17.5 | 11.5 | ... |
| Hardwood total | 2551.1 | 493.8 | 906.3 | 849.7 | 301.2 |
| All types | 3481.2 | 893.0 | 1131.1 | 1156.0 | 301.2 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood type.

[2] Timberland less than 16.7 percent stocked.

Table 10 – *Number of live trees on timberland by species and diameter class, Southeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Thousand trees* | | | | | | | | | | | | |
| Shortleaf-loblolly pine | 624972 | 329566 | 159758 | 62614 | 30300 | 19057 | 13211 | 6415 | 2515 | 996 | 294 | 246 | ... |
| Cypress | 89 | ... | ... | ... | 77 | ... | ... | ... | ... | 12 | ... | ... | ... |
| Other softwoods | 33963 | 24657 | 5821 | 1946 | 930 | 372 | 82 | 105 | 15 | 27 | 8 | ... | ... |
| Total softwoods | 659024 | 354223 | 165579 | 64560 | 31308 | 19429 | 13294 | 6520 | 2530 | 1035 | 302 | 246 | ... |
| Select white oaks | 73763 | 37778 | 19343 | 7568 | 3792 | 2515 | 818 | 873 | 555 | 284 | 145 | 77 | 15 |
| Select red oaks | 29623 | 12378 | 7907 | 5151 | 1668 | 875 | 585 | 413 | 219 | 170 | 95 | 140 | 22 |
| Other white oaks | 377436 | 177762 | 113765 | 41209 | 19322 | 10903 | 6581 | 4545 | 1689 | 872 | 411 | 378 | ... |
| Other red oaks | 127514 | 73335 | 31159 | 10177 | 4575 | 2782 | 2155 | 1164 | 785 | 626 | 390 | 345 | 21 |
| Hickory | 233839 | 132543 | 57794 | 22752 | 11262 | 5169 | 2049 | 1296 | 557 | 217 | 82 | 106 | 12 |
| Hard maple | 1733 | 1033 | 516 | ... | ... | 134 | 27 | 23 | ... | ... | ... | ... | ... |
| Soft maple | 55942 | 41708 | 10488 | 2192 | 465 | 274 | 345 | 177 | 182 | 49 | 23 | 39 | ... |
| Sweetgum | 24670 | 16155 | 4623 | 1781 | 823 | 446 | 306 | 259 | 160 | 61 | 10 | 41 | 4 |
| Tupelo-blackgum | 26728 | 19375 | 4377 | 1292 | 695 | 278 | 269 | 160 | 161 | 38 | 40 | 43 | ... |
| Ash | 43960 | 23176 | 10402 | 4236 | 3095 | 1342 | 789 | 342 | 256 | 162 | 75 | 86 | ... |
| Cottonwood-aspen | 1865 | ... | ... | 274 | 631 | 330 | 198 | 111 | 30 | 52 | 53 | 180 | 6 |
| Basswood | 189 | ... | ... | 77 | 54 | 33 | 25 | ... | ... | ... | ... | ... | ... |
| Black walnut | 249 | ... | ... | 115 | ... | 99 | ... | 24 | ... | ... | ... | 11 | ... |
| Other hardwoods | 302220 | 212338 | 56667 | 17552 | 7180 | 4561 | 1642 | 1196 | 535 | 258 | 129 | 134 | 29 |
| Total hardwoods | 1299730 | 747580 | 317042 | 114376 | 53561 | 29742 | 15791 | 10582 | 5129 | 2788 | 1452 | 1580 | 107 |
| Noncommercial | 220514 | 157455 | 38506 | 13098 | 6182 | 3248 | 1113 | 572 | 218 | 83 | ... | 39 | ... |
| All species | 2179268 | 1259257 | 521126 | 192034 | 91050 | 52418 | 30198 | 17674 | 7878 | 3906 | 1754 | 1865 | 107 |

**Table 11** – *Number of growing-stock trees on timberland by species and diameter class, Southeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Thousand trees* | | | | | | | | | | | | |
| Shortleaf-loblolly pine | 442826 | 182123 | 133474 | 57114 | 28925 | 18427 | 12653 | 6219 | 2470 | 946 | 243 | 231 | ... |
| Other softwoods | 30628 | 23034 | 5403 | 1220 | 637 | 173 | 63 | 86 | ... | 13 | ... | ... | ... |
| Total softwoods | 473454 | 205157 | 138877 | 58334 | 29562 | 18600 | 12716 | 6305 | 2470 | 959 | 243 | 231 | ... |
| Select white oaks | 37355 | 14468 | 11575 | 5164 | 3043 | 1839 | 414 | 361 | 228 | 139 | 73 | 48 | 3 |
| Select red oaks | 12867 | 1538 | 5695 | 3075 | 934 | 673 | 346 | 292 | 93 | 82 | 52 | 82 | 5 |
| Other white oaks | 138929 | 36769 | 54816 | 25201 | 11583 | 5533 | 2304 | 1580 | 677 | 270 | 101 | 94 | ... |
| Other red oaks | 59743 | 26065 | 18035 | 6753 | 3693 | 1904 | 1354 | 824 | 453 | 346 | 214 | 103 | ... |
| Hickory | 68384 | 24079 | 22391 | 11547 | 5724 | 2637 | 929 | 649 | 275 | 53 | 32 | 68 | ... |
| Hard maple | 42 | ... | ... | ... | ... | 42 | ... | ... | ... | ... | ... | ... | ... |
| Soft maple | 11566 | 5973 | 4144 | 996 | 280 | 99 | ... | 56 | 18 | ... | ... | ... | ... |
| Sweetgum | 10697 | 5724 | 2484 | 1066 | 416 | 363 | 255 | 222 | 95 | 48 | ... | 24 | ... |
| Tupelo-blackgum | 6094 | 2661 | 2170 | 424 | 395 | 170 | 89 | 116 | 47 | 12 | 10 | ... | ... |
| Ash | 17591 | 5199 | 6530 | 2384 | 1816 | 679 | 505 | 186 | 114 | 123 | 31 | 23 | ... |
| Cottonwood-aspen | 1766 | ... | ... | 184 | 631 | 330 | 198 | 111 | 30 | 52 | 53 | 173 | 4 |
| Basswood | 54 | ... | ... | ... | 54 | ... | ... | ... | ... | ... | ... | ... | ... |
| Black walnut | 35 | ... | ... | ... | ... | ... | ... | 24 | ... | ... | ... | 11 | ... |
| Other hardwoods | 42338 | 15668 | 13807 | 6243 | 2863 | 2364 | 578 | 466 | 199 | 55 | 66 | 30 | ... |
| Total hardwoods | 407461 | 138144 | 141647 | 63038 | 31432 | 16633 | 6972 | 4887 | 2230 | 1180 | 632 | 655 | 11 |
| All species | 880915 | 343301 | 280524 | 121372 | 60994 | 35233 | 19688 | 11192 | 4700 | 2139 | 875 | 886 | 11 |

Table 12 — *Volume of growing stock on timberland by species and diameter class, Southeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | | | | | |
| Shortleaf-loblolly pine | 945.6 | 113.4 | 148.2 | 189.4 | 197.2 | 143.4 | 76.0 | 39.9 | 14.7 | 23.4 | ... |
| Other softwoods | 9.6 | 2.6 | 2.3 | 1.8 | 0.9 | 1.6 | ... | 0.5 | ... | ... | ... |
| Total softwoods | 955.2 | 116.0 | 150.4 | 191.2 | 198.1 | 145.0 | 76.0 | 40.4 | 14.7 | 23.4 | ... |
| Select white oaks | 77.3 | 13.9 | 15.4 | 17.5 | 6.5 | 8.1 | 5.1 | 5.3 | 2.8 | 2.5 | 0.2 |
| Select red oaks | 38.7 | 7.2 | 4.6 | 4.9 | 4.2 | 5.4 | 3.0 | 2.0 | 2.2 | 4.7 | 0.4 |
| Other white oaks | 214.5 | 49.1 | 48.1 | 39.9 | 26.2 | 23.8 | 13.8 | 7.1 | 3.1 | 3.5 | ... |
| Other red oaks | 124.8 | 13.5 | 16.8 | 16.2 | 19.7 | 17.6 | 11.8 | 12.6 | 10.5 | 6.1 | ... |
| Hickory | 102.5 | 19.7 | 23.6 | 20.3 | 10.9 | 12.5 | 7.3 | 1.6 | 1.5 | 5.0 | ... |
| Hard maple | 0.4 | ... | ... | 0.4 | ... | ... | ... | ... | ... | ... | ... |
| Soft maple | 5.6 | 2.1 | 1.4 | 0.6 | ... | 1.1 | 0.4 | ... | ... | ... | ... |
| Sweetgum | 24.0 | 2.1 | 2.3 | 3.2 | 4.9 | 5.2 | 3.2 | 1.5 | ... | 1.7 | ... |
| Tupelo-blackgum | 9.3 | 1.0 | 1.6 | 1.2 | 1.0 | 2.3 | 1.4 | 0.2 | 0.6 | ... | ... |
| Ash | 40.9 | 5.8 | 10.0 | 6.3 | 6.7 | 3.3 | 2.5 | 3.5 | 1.4 | 1.4 | ... |
| Cottonwood-aspen | 40.2 | 0.5 | 3.2 | 3.2 | 3.3 | 2.7 | 1.3 | 3.0 | 4.7 | 17.9 | 0.6 |
| Basswood | 0.2 | ... | 0.2 | ... | ... | ... | ... | ... | ... | ... | ... |
| Black walnut | 0.8 | ... | ... | ... | ... | 0.4 | ... | ... | ... | 0.4 | ... |
| Other hardwoods | 71.2 | 12.2 | 12.3 | 18.1 | 7.3 | 9.8 | 5.5 | 1.7 | 2.9 | 1.4 | ... |
| Total hardwoods | 750.3 | 126.9 | 139.4 | 131.7 | 90.6 | 92.2 | 55.3 | 38.5 | 29.8 | 44.6 | 1.3 |
| All species | 1705.5 | 242.9 | 289.8 | 322.9 | 288.6 | 237.2 | 131.4 | 78.9 | 44.5 | 68.0 | 1.3 |

**Table 13** – *Volume of growing stock in the saw log portion of sawtimber[1] trees on timberland by species and diameter class, Southeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | | | |
| Shortleaf-loblolly pine | 614.4 | 159.0 | 178.7 | 132.4 | 70.4 | 37.4 | 14.1 | 22.5 | ... |
| Other softwoods | 4.0 | 1.4 | 0.7 | 1.5 | ... | 0.4 | ... | ... | ... |
| Total softwoods | 618.5 | 160.4 | 179.4 | 133.9 | 70.4 | 37.9 | 14.1 | 22.5 | ... |
| Select white oaks | 26.4 | ... | 5.2 | 6.9 | 4.6 | 4.8 | 2.4 | 2.2 | 0.2 |
| Select red oaks | 20.1 | ... | 3.6 | 4.8 | 2.8 | 1.8 | 2.0 | 4.6 | 0.4 |
| Other white oaks | 70.2 | ... | 23.5 | 21.7 | 12.6 | 6.4 | 2.8 | 3.2 | ... |
| Other red oaks | 66.7 | ... | 14.7 | 15.6 | 10.2 | 11.1 | 9.7 | 5.3 | ... |
| Hickory | 32.9 | ... | 8.9 | 10.8 | 6.3 | 1.3 | 1.4 | 4.2 | ... |
| Soft maple | 1.3 | ... | ... | 0.9 | 0.4 | ... | ... | ... | ... |
| Sweetgum | 13.9 | ... | 3.6 | 4.4 | 2.8 | 1.4 | ... | 1.6 | ... |
| Tupelo-blackgum | 4.3 | ... | 0.7 | 1.6 | 1.3 | 0.2 | 0.5 | ... | ... |
| Ash | 16.6 | ... | 5.3 | 3.0 | 2.3 | 3.4 | 1.2 | 1.4 | ... |
| Cottonwood-aspen | 30.3 | ... | 2.3 | 2.1 | 0.9 | 2.8 | 4.4 | 17.0 | 0.6 |
| Black walnut | 0.7 | ... | ... | 0.3 | ... | ... | ... | 0.4 | ... |
| Other hardwoods | 24.3 | ... | 6.1 | 8.3 | 4.7 | 1.6 | 2.5 | 1.1 | ... |
| Total hardwoods | 307.7 | ... | 74.0 | 80.4 | 49.0 | 34.9 | 26.9 | 41.1 | 1.3 |
| All species | 926.1 | 160.4 | 253.5 | 214.3 | 119.3 | 72.8 | 41.1 | 63.6 | 1.3 |

[1] That part of the bole of sawtimber trees between the 1-foot stump and the saw log top, including the portion of the forks large enough to contain a saw log.

**Table 14** – *Volume of sawtimber on timberland by species and diameter class, Southeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|
| | *Million board feet* | | | | | | | | |
| Shortleaf-loblolly pine | 3499.2 | 824.6 | 987.4 | 777.2 | 436.0 | 234.1 | 92.5 | 147.4 | ... |
| Other softwoods | 20.6 | 6.9 | 3.8 | 7.7 | ... | 2.3 | ... | ... | ... |
| Total softwoods | 3519.8 | 831.5 | 991.2 | 784.9 | 436.0 | 236.4 | 92.5 | 147.4 | ... |
| Select white oaks | 159.6 | ... | 29.4 | 40.1 | 26.9 | 30.6 | 16.4 | 15.3 | 0.9 |
| Select red oaks | 123.3 | ... | 20.1 | 26.9 | 16.8 | 11.1 | 13.8 | 31.4 | 3.2 |
| Other white oaks | 409.1 | ... | 128.1 | 124.1 | 76.6 | 40.1 | 18.2 | 22.0 | ... |
| Other red oaks | 392.0 | ... | 78.7 | 88.8 | 60.8 | 67.7 | 60.8 | 35.3 | ... |
| Hickory | 196.6 | ... | 49.0 | 63.6 | 39.2 | 8.4 | 8.8 | 27.6 | ... |
| Soft maple | 7.6 | ... | ... | 5.4 | 2.2 | ... | ... | ... | ... |
| Sweetgum | 80.4 | ... | 20.7 | 24.6 | 17.2 | 8.2 | ... | 9.6 | ... |
| Tupelo-blackgum | 23.8 | ... | 3.7 | 8.5 | 7.5 | 1.2 | 2.8 | ... | ... |
| Ash | 95.3 | ... | 27.7 | 16.7 | 14.0 | 20.8 | 7.8 | 8.3 | ... |
| Cottonwood-aspen | 196.1 | ... | 13.2 | 12.3 | 5.9 | 18.1 | 31.0 | 112.3 | 3.4 |
| Black walnut | 4.2 | ... | ... | 1.5 | ... | ... | ... | 2.6 | ... |
| Other hardwoods | 145.5 | ... | 34.0 | 49.2 | 28.0 | 9.8 | 16.7 | 7.7 | ... |
| Total hardwoods | 1833.4 | ... | 404.6 | 461.7 | 295.2 | 216.0 | 176.4 | 272.2 | 7.5 |
| All species | 5353.3 | 831.5 | 1395.8 | 1246.5 | 731.2 | 452.4 | 268.8 | 419.6 | 7.5 |

**Table 15** – *Volume of growing stock and sawtimber on timberland by county and species group, Southeast Oklahoma, 1986*

| County | Growing Stock: All species | Softwood: Pine: Planted | Softwood: Pine: Natural | Softwood: Other | Hardwood: Soft[1] | Hardwood: Hard[2] | Sawtimber: All species | Softwood: Pine: Planted | Softwood: Pine: Natural | Softwood: Other | Hardwood: Soft[1] | Hardwood: Hard[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | *Million board feet* | | | | | |
| Atoka[3] | 110.9 | ... | 47.3 | ... | 11.1 | 52.5 | 308.4 | ... | 151.2 | ... | 16.7 | 140.4 |
| Bryan | 46.4 | ... | ... | 0.2 | 13.0 | 33.1 | 138.4 | ... | ... | ... | 49.3 | 89.1 |
| Choctaw | 64.8 | ... | 14.7 | 2.8 | 9.3 | 38.1 | 201.3 | ... | 51.3 | 8.7 | 16.7 | 124.6 |
| Haskell | 68.2 | ... | 12.0 | ... | 33.7 | 22.6 | 275.4 | ... | 37.5 | ... | 183.0 | 54.9 |
| Latimer | 142.6 | ... | 95.2 | 0.6 | 1.8 | 45.0 | 388.8 | ... | 319.1 | ... | ... | 69.7 |
| Le Flore | 299.7 | 3.4 | 159.4 | 2.8 | 25.9 | 108.2 | 779.2 | 2.2 | 536.8 | 3.8 | 45.1 | 191.2 |
| McCurtain | 547.8 | 39.2 | 274.3 | 0.2 | 39.6 | 194.5 | 1912.2 | 75.2 | 1226.5 | ... | 117.4 | 493.1 |
| Pittsburg | 47.3 | ... | 19.8 | ... | 2.6 | 24.9 | 163.1 | ... | 65.9 | ... | 8.5 | 88.6 |
| Pushmataha | 378.0 | 4.0 | 276.3 | 3.0 | 6.4 | 88.2 | 1186.6 | 3.9 | 1029.5 | 8.1 | 10.6 | 134.5 |
| All counties | 1705.5 | 46.6 | 899.0 | 9.6 | 143.3 | 607.0 | 5353.3 | 81.3 | 3417.9 | 20.6 | 447.2 | 1386.3 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Coal included in Atoka.

**Table 16** – *Volume of timber on timberland by class of timber and species group, Southeast Oklahoma, 1986*

| Class of timber | All species | Softwood | | | Hardwood | |
|---|---|---|---|---|---|---|
| | | Pine | | | | |
| | | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | |
| Sawtimber trees: | | | | | | |
| Saw log portion | 926.1 | 15.1 | 599.3 | 4.0 | 73.0 | 234.7 |
| Upper-stem portion | 114.9 | 2.0 | 67.7 | 0.7 | 11.0 | 33.6 |
| Total | 1041.1 | 17.2 | 667.0 | 4.7 | 84.0 | 268.3 |
| Poletimber trees | 664.5 | 29.4 | 232.1 | 4.9 | 59.4 | 338.7 |
| All growing-stock trees | 1705.5 | 46.6 | 899.0 | 9.6 | 143.3 | 607.0 |
| Rough trees: | | | | | | |
| Sawtimber size | 224.1 | 1.7 | 12.8 | 1.8 | 32.5 | 175.3 |
| Poletimber size | 243.6 | 1.2 | 11.4 | 1.5 | 41.1 | 188.5 |
| Total | 467.8 | 2.9 | 24.2 | 3.3 | 73.5 | 363.8 |
| Rotten trees: | | | | | | |
| Sawtimber size | 50.4 | ... | 1.7 | 0.3 | 11.0 | 37.3 |
| Poletimber size | 9.0 | ... | ... | ... | 1.1 | 7.9 |
| Total | 59.4 | ... | 1.7 | 0.3 | 12.1 | 45.2 |
| Salvable dead trees: | | | | | | |
| Sawtimber size | 11.8 | 1.0 | 3.5 | ... | 1.8 | 5.5 |
| Poletimber size | 6.8 | 0.2 | 1.9 | ... | 1.2 | 3.5 |
| Total | 18.6 | 1.1 | 5.4 | ... | 3.0 | 9.0 |
| All classes | 2251.2 | 50.7 | 930.4 | 13.3 | 232.0 | 1025.0 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 17 - *Volume of live trees and growing stock on timberland by ownership class and species group, Southeast Oklahoma, 1986*

| Ownership class | Live trees | | | | | | Growing stock | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | *Million cubic feet* | | | | | | | | | | | |
| National forest | 285.4 | 2.7 | 167.2 | 2.4 | 12.4 | 100.7 | 249.5 | 2.7 | 164.0 | 2.4 | 8.1 | 72.4 |
| Other public | 143.1 | ... | 51.8 | 0.3 | 38.7 | 52.2 | 109.1 | ... | 50.8 | ... | 33.9 | 24.4 |
| Forest industry | 583.7 | 41.6 | 317.8 | 1.7 | 28.3 | 194.3 | 507.1 | 39.9 | 309.3 | 0.8 | 19.1 | 138.1 |
| Other private | 1220.4 | 5.3 | 388.1 | 8.8 | 149.5 | 668.7 | 839.8 | 4.1 | 375.0 | 6.4 | 82.2 | 372.1 |
| All ownerships | 2232.6 | 49.5 | 924.9 | 13.3 | 228.9 | 1016.0 | 1705.5 | 46.6 | 899.0 | 9.6 | 143.3 | 607.0 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 18 – *Average net annual growth of growing stock and sawtimber on timberland by county and species group, Southeast Oklahoma, 1986*

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | *Million cubic feet* | | | | | | *Million board feet* | | | | | |
| Atoka[3] | 4.9 | ... | 2.8 | ... | -0.4 | 2.5 | 16.4 | ... | 11.2 | ... | -1.0 | 6.2 |
| Bryan | 0.6 | ... | ... | ... | -0.2 | 0.8 | 4.9 | ... | ... | ... | 1.2 | 3.6 |
| Choctaw | 3.0 | ... | 1.2 | 0.1 | 0.3 | 1.4 | 11.7 | ... | 4.4 | 0.3 | 0.2 | 6.9 |
| Haskell | 3.4 | ... | 0.7 | ... | 2.0 | 0.7 | 21.5 | ... | 2.6 | ... | 15.7 | 3.2 |
| Latimer | 4.2 | ... | 3.2 | 0.1 | ... | 0.9 | 13.1 | ... | 12.6 | ... | ... | 0.6 |
| Le Flore | 10.3 | 0.6 | 6.2 | 0.4 | 0.3 | 2.8 | 32.4 | 1.9 | 25.8 | 0.1 | 0.6 | 4.0 |
| McCurtain | 22.8 | 6.3 | 9.6 | ... | 0.8 | 6.1 | 90.4 | 17.2 | 49.0 | 0.1 | 3.6 | 20.5 |
| Pittsburg | 1.0 | ... | 1.7 | ... | -1.4 | 0.7 | 5.7 | ... | 4.4 | ... | -4.0 | 5.4 |
| Pushmataha | 14.5 | 1.4 | 9.8 | 0.1 | 0.3 | 3.0 | 57.4 | 3.5 | 48.3 | 0.1 | 0.8 | 4.7 |
| All counties | 64.6 | 8.3 | 35.1 | 0.6 | 1.7 | 18.9 | 253.7 | 22.6 | 158.2 | 0.6 | 17.1 | 55.2 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Coal included in Atoka.

Table 19 – *Average annual removals of growing stock and sawtimber on timberland by county and species group, Southeast Oklahoma, 1986*

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Softwood | | | Hardwood | | | Softwood | | | Hardwood | |
| | | Pine | | | | | | Pine | | | | |
| | All species | Planted | Natural | Other | Soft[1] | Hard[2] | All species | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | | *Million board feet* | | | | | |
| Atoka[3] | 4.3 | ... | 1.0 | ... | 0.4 | 2.9 | 14.5 | ... | 3.7 | ... | 1.5 | 9.3 |
| Bryan | 0.5 | ... | ... | ... | ... | 0.5 | 1.4 | ... | ... | ... | ... | 1.4 |
| Choctaw | 2.9 | ... | 0.3 | ... | 0.8 | 1.9 | 8.9 | ... | 0.6 | ... | 2.1 | 6.1 |
| Haskell | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Latimer | 0.2 | ... | ... | ... | ... | 0.2 | 0.3 | ... | 0.1 | ... | ... | 0.3 |
| Le Flore | 13.0 | 3.6 | 5.5 | 0.5 | 0.6 | 2.8 | 44.6 | 15.8 | 20.0 | ... | 2.7 | 6.1 |
| McCurtain | 38.5 | 22.1 | 5.0 | 0.1 | 1.5 | 9.8 | 143.5 | 91.2 | 17.7 | 0.4 | 5.1 | 29.0 |
| Pittsburg | 1.0 | ... | ... | ... | ... | 0.9 | 1.3 | ... | ... | ... | ... | 1.3 |
| Pushmataha | 15.2 | 8.3 | 4.5 | ... | 0.2 | 2.2 | 45.5 | 26.1 | 14.4 | 0.2 | 0.6 | 4.2 |
| All counties | 75.5 | 34.0 | 16.3 | 0.6 | 3.5 | 21.1 | 260.1 | 133.1 | 56.6 | 0.6 | 12.1 | 57.8 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Coal included in Atoka.

Table 20 – *Average net annual growth and average annual removals of growing stock on timberland, Southeast Oklahoma, 1986*

| Species | Growth | Removals |
|---|---|---|
| | *Million cubic feet* | |
| Yellow pines | 43.5 | 50.3 |
| Other softwoods | 0.6 | 0.6 |
| Total softwoods | 44.0 | 50.9 |
| Select white-red oaks | 3.7 | 3.1 |
| Other white-red oaks | 11.3 | 14.0 |
| Hickory | 2.1 | 3.0 |
| Sweetgum | 0.6 | 1.4 |
| Ash-walnut-black cherry | 1.6 | 0.8 |
| Other hardwoods | 1.2 | 2.3 |
| Total hardwoods | 20.6 | 24.5 |
| All species | 64.6 | 75.4 |

Table 21 – *Average net annual growth and average annual removals of sawtimber on timberland, Southeast Oklahoma, 1986*

| Species | Growth | Removals |
|---|---|---|
| | *Million board feet* | |
| Yellow pines | 180.8 | 189.8 |
| Other softwoods | 0.6 | 0.6 |
| Total softwoods | 181.4 | 190.4 |
| Select white-red oaks | 9.5 | 8.6 |
| Other white-red oaks | 35.5 | 37.6 |
| Hickory | 5.2 | 9.6 |
| Sweetgum | 4.2 | 4.3 |
| Ash-walnut-black cherry | 5.7 | 1.5 |
| Other hardwoods | 12.2 | 8.1 |
| Total hardwoods | 72.3 | 69.8 |
| All species | 253.7 | 260.1 |

Table 22 – *Average annual mortality of growing stock and sawtimber on timberland by species, Southeast Oklahoma, 1986*

| Species | Growing stock | Sawtimber |
|---|---|---|
| | *Million cubic feet* | *Million board feet* |
| Yellow pines | 2.7 | 8.2 |
| Total softwoods | 2.7 | 8.2 |
| Select white-red oaks | 1.0 | 2.7 |
| Other white-red oaks | 3.2 | 8.2 |
| Hickory | 1.4 | 4.8 |
| Sweetgum | ... | ... |
| Ash-walnut-black cherry | 0.4 | 1.2 |
| Other hardwoods | 4.6 | 15.6 |
| Total hardwoods | 10.8 | 32.4 |
| All species | 13.4 | 40.6 |

Table 23 – *Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, Southeast Oklahoma, 1986*

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | Other | Soft[1] | Hard[2] | | Pine | | Other | Soft[1] | Hard[2] |
| | | Planted | Natural | | | | | Planted | Natural | | | |
| | *Million cubic feet* | | | | | | | | | | | |
| National forest | 7.5 | 0.4 | 5.0 | 0.3 | -0.1 | 1.9 | 4.3 | 1.2 | 1.1 | 0.4 | ... | 1.6 |
| Other public | 4.5 | ... | 1.9 | ... | 2.0 | 0.7 | 1.0 | ... | 0.9 | ... | ... | 0.1 |
| Forest industry | 22.0 | 7.6 | 9.9 | ... | 0.1 | 4.5 | 50.7 | 32.5 | 7.4 | 0.1 | 1.6 | 9.1 |
| Other private | 30.7 | 0.4 | 18.4 | 0.3 | -0.3 | 11.9 | 19.4 | 0.3 | 6.9 | 0.1 | 1.9 | 10.2 |
| All ownerships | 64.7 | 8.3 | 35.1 | 0.6 | 1.7 | 18.9 | 75.4 | 34.0 | 16.3 | 0.6 | 3.5 | 21.0 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 24 – *Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, Southeast Oklahoma, 1986*

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | | | | | Pine | | | | |
| | | Planted | Natural | Other | Soft[1] | Hard[2] | | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million board feet* | | | | | | | | | | | |
| National forest | 32.7 | 0.6 | 25.6 | 0.1 | -0.1 | 6.5 | 12.9 | 5.2 | 4.2 | ... | ... | 3.5 |
| Other public | 25.8 | ... | 7.2 | ... | 16.4 | 2.1 | 2.0 | ... | 2.0 | ... | ... | ... |
| Forest industry | 77.5 | 21.0 | 46.1 | -0.1 | 0.6 | 10.0 | 183.3 | 126.4 | 28.7 | 0.2 | 5.6 | 22.4 |
| Other private | 117.8 | 1.0 | 79.3 | 0.5 | 0.2 | 36.7 | 61.9 | 1.4 | 21.7 | 0.4 | 6.5 | 31.8 |
| All ownerships | 253.8 | 22.6 | 158.2 | 0.6 | 17.1 | 55.3 | 260.0 | 133.1 | 56.6 | 0.6 | 12.1 | 57.7 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 25 – *Volume of sawtimber on timberland by species and tree grade, Southeast Oklahoma, 1986*

| Species | All grades | Grade 1 | Grade 2 | Grade 3 | Grade 4 |
|---|---|---|---|---|---|
| | *Million board feet* | | | | |
| Yellow pines | 3499.2 | 441.8 | 726.3 | 2331.1 | ... |
| Redcedar | 20.6 | 20.6 | ... | ... | ... |
| Total softwoods | 3519.8 | 462.5 | 726.3 | 2331.1 | ... |
| Select white-red oaks | 282.9 | 19.5 | 92.4 | 124.6 | 46.4 |
| Other white-red oaks | 801.1 | 41.6 | 126.7 | 320.0 | 312.9 |
| Hickory | 196.6 | 15.0 | 36.5 | 84.9 | 60.2 |
| Sweetgum | 80.4 | 4.4 | 23.7 | 36.7 | 15.6 |
| Tupelo and blackgum | 23.8 | ... | 6.5 | 11.3 | 6.0 |
| Ash-walnut-black cherry | 105.0 | 18.2 | 24.4 | 58.0 | 4.4 |
| Other hardwoods | 343.6 | 132.4 | 93.1 | 83.4 | 34.7 |
| Total hardwoods | 1833.4 | 231.1 | 403.3 | 718.9 | 480.2 |
| All species | 5353.3 | 693.6 | 1129.6 | 3050.0 | 480.2 |

**Table 26** – *Area of timberland by stand age, forest type group, and type of regeneration, Southeast Oklahoma, 1986*

| Stand age class | Pine | | Oak-pine | | Other hardwood types | |
|---|---|---|---|---|---|---|
| | Artificial | Natural | Artificial | Natural | Artificial | Natural |
| | *Thousand acres* | | | | | |
| 1-10 | 173.0 | 23.9 | 127.1 | 6.0 | 80.0 | 94.0 |
| 11-20 | 67.9 | 24.1 | 22.5 | ... | ... | 28.9 |
| 21-30 | 5.6 | 18.3 | ... | ... | ... | 6.0 |
| 31-40 | ... | 59.0 | ... | 6.0 | ... | 24.8 |
| 41-50 | ... | 24.4 | ... | 6.0 | ... | 23.3 |
| >50 | ... | 12.8 | ... | 6.0 | ... | 11.6 |
| Mixed | 17.6 | 503.5 | 23.3 | 522.3 | ... | 1563.2 |
| All classes | 264.2 | 666.0 | 172.9 | 546.3 | 80.0 | 1751.9 |

**Table 27** – *Volume of softwood growing stock on timberland by forest type, Southeast Oklahoma, 1986*

| County | Total | Forest type group | | | |
|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory |
| | | Planted | Natural | | |
| | *Million cubic feet* | | | | |
| Atoka[1] | 47.3 | ... | 40.6 | 4.2 | 2.5 |
| Bryan | 0.2 | ... | ... | ... | 0.2 |
| Choctaw | 17.4 | ... | 8.5 | 5.2 | 3.8 |
| Haskell | 12.0 | ... | ... | 10.4 | 1.5 |
| Latimer | 95.8 | ... | 52.5 | 30.5 | 12.8 |
| Le Flore | 165.6 | 3.2 | 94.4 | 53.0 | 15.0 |
| McCurtain | 313.7 | 33.0 | 195.1 | 62.7 | 22.9 |
| Pittsburg | 19.8 | ... | 14.0 | 4.8 | 1.0 |
| Pushmataha | 283.4 | 2.1 | 215.8 | 56.1 | 9.4 |
| All counties | 955.2 | 38.3 | 620.9 | 226.9 | 69.1 |

[1] Coal included in Atoka.

**Table 28** – *Volume of hardwood growing stock on timberland by forest type, Southeast Oklahoma, 1986*

| County | Total | Forest type group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum-cypress | Elm-ash-cottonwood |
| | | Planted | Natural | | | | |
| | *Million cubic feet* | | | | | | |
| Atoka[1] | 63.5 | ... | 1.9 | 1.2 | 21.0 | 33.3 | 6.1 |
| Bryan | 46.1 | ... | ... | ... | 25.9 | 20.3 | ... |
| Choctaw | 47.3 | ... | 2.0 | 1.8 | 38.0 | 5.5 | ... |
| Haskell | 56.3 | ... | ... | 1.8 | 8.3 | 16.0 | 30.2 |
| Latimer | 46.8 | ... | 5.0 | 12.7 | 25.1 | 4.0 | ... |
| Le Flore | 134.1 | 0.2 | 7.8 | 19.2 | 80.0 | 17.6 | 9.2 |
| McCurtain | 234.1 | 1.5 | 23.6 | 36.0 | 121.1 | 51.9 | ... |
| Pittsburg | 27.5 | ... | 0.2 | 0.2 | 15.6 | 11.4 | ... |
| Pushmataha | 94.6 | ... | 23.4 | 28.7 | 39.6 | 2.9 | ... |
| All counties | 750.3 | 1.7 | 64.0 | 101.7 | 374.4 | 163.0 | 45.6 |

[1] Coal included in Atoka.

**Table 29** – *Volume of softwood growing stock in the saw log portion of sawtimber trees on timberland by forest type, Southeast Oklahoma, 1986*

| County | Total | Forest type group | | | |
|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory |
| | | Planted | Natural | | |
| | *Million cubic feet* | | | | |
| Atoka[1] | 27.5 | ... | 24.1 | 1.9 | 1.4 |
| Bryan | ... | ... | ... | ... | ... |
| Choctaw | 11.3 | ... | 5.9 | 3.2 | 2.3 |
| Haskell | 6.9 | ... | ... | 5.8 | 1.1 |
| Latimer | 59.3 | ... | 31.0 | 20.1 | 8.3 |
| Le Flore | 97.9 | 0.4 | 56.3 | 33.4 | 7.8 |
| McCurtain | 218.6 | 13.2 | 145.5 | 42.1 | 17.8 |
| Pittsburg | 11.7 | ... | 8.5 | 2.7 | 0.5 |
| Pushmataha | 185.3 | 0.4 | 144.5 | 34.6 | 5.8 |
| All counties | 618.5 | 14.0 | 415.8 | 143.7 | 45.0 |

[1] Coal included in Atoka.

Table 30 – *Volume of hardwood growing stock in the saw log portion of sawtimber trees on timberland by forest type, Southeast Oklahoma, 1986*

| County | Total | Forest type group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum-cypress | Elm-ash-cottonwood |
| | | Planted | Natural | | | | |
| | *Million cubic feet* | | | | | | |
| Atoka[1] | 26.6 | ... | 1.3 | ... | 4.7 | 16.6 | 4.0 |
| Bryan | 23.1 | ... | ... | ... | 11.4 | 11.7 | ... |
| Choctaw | 24.1 | ... | 0.6 | 0.5 | 19.2 | 3.8 | ... |
| Haskell | 37.4 | ... | ... | 0.2 | 2.1 | 9.5 | 25.6 |
| Latimer | 12.4 | ... | 0.8 | 3.8 | 5.9 | 2.0 | ... |
| Le Flore | 39.5 | ... | 1.9 | 5.7 | 22.3 | 7.6 | 2.0 |
| McCurtain | 103.8 | 0.9 | 9.2 | 16.7 | 40.5 | 36.5 | ... |
| Pittsburg | 15.9 | ... | 0.2 | ... | 7.0 | 8.7 | ... |
| Pushmataha | 24.8 | ... | 6.7 | 7.4 | 8.9 | 1.8 | ... |
| All counties | 307.7 | 0.9 | 20.7 | 34.3 | 122.1 | 98.0 | 31.6 |

[1] Coal included in Atoka.

Table 31 – *Volume of timber on timberland by county, class of timber, and species group, Southeast Oklahoma, 1986*

| County | All classes | Growing stock | | Rough | | Rotten | |
|---|---|---|---|---|---|---|---|
| | | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| | *Million cubic feet* | | | | | | |
| Atoka[1] | 178.4 | 47.3 | 63.5 | 0.8 | 59.5 | 0.4 | 6.9 |
| Bryan | 82.3 | 0.2 | 46.1 | 0.4 | 32.6 | ... | 3.0 |
| Choctaw | 91.6 | 17.4 | 47.3 | 0.6 | 24.1 | ... | 2.2 |
| Haskell | 99.2 | 12.0 | 56.3 | 0.5 | 27.4 | 0.2 | 2.9 |
| Latimer | 199.5 | 95.8 | 46.8 | 3.7 | 46.5 | ... | 6.7 |
| Le Flore | 404.0 | 165.6 | 134.1 | 5.8 | 89.0 | ... | 9.5 |
| McCurtain | 623.8 | 313.7 | 234.1 | 6.6 | 55.4 | ... | 13.9 |
| Pittsburg | 81.2 | 19.8 | 27.5 | 2.0 | 28.5 | 0.1 | 3.3 |
| Pushmataha | 472.6 | 283.4 | 94.6 | 10.2 | 74.4 | 1.3 | 8.8 |
| All counties | 2232.6 | 955.2 | 750.3 | 30.4 | 437.3 | 2.1 | 57.3 |

[1] Coal included in Atoka.

Table 32 – *Number of live trees on timberland by detailed species and diameter class, Southeast Oklahoma, 1986*

| Species | Diameter class (inches at breast height) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | *Thousand trees* | | | | | | | | | | | | |
| Shortleaf pine | 499376 | 274130 | 110443 | 46955 | 27925 | 18167 | 12495 | 5927 | 2299 | 779 | 196 | 60 | ... |
| Loblolly pine | 125596 | 55436 | 49315 | 15659 | 2375 | 890 | 716 | 488 | 216 | 217 | 98 | 186 | ... |
| Redcedar | 33963 | 24657 | 5821 | 1946 | 930 | 372 | 82 | 105 | 15 | 27 | 8 | ... | ... |
| Cypress | 89 | ... | ... | ... | 77 | ... | ... | ... | ... | 12 | ... | ... | ... |
| Total softwoods | 659024 | 354223 | 165579 | 64560 | 31308 | 19429 | 13294 | 6520 | 2530 | 1035 | 302 | 246 | ... |
| Select white oaks | 73763 | 37778 | 19343 | 7568 | 3792 | 2515 | 818 | 873 | 555 | 284 | 145 | 77 | 15 |
| Select red oaks | 29623 | 12378 | 7907 | 5151 | 1668 | 875 | 585 | 413 | 219 | 170 | 95 | 140 | 22 |
| Other white oaks | 377436 | 177762 | 113765 | 41209 | 19322 | 10903 | 6581 | 4545 | 1689 | 872 | 411 | 378 | ... |
| Other red oaks | 127514 | 73335 | 31159 | 10177 | 4575 | 2782 | 2155 | 1164 | 785 | 626 | 390 | 345 | 21 |
| Sweet pecan | 2660 | 1816 | ... | 291 | 144 | 46 | 95 | 92 | 31 | 55 | 34 | 49 | 8 |
| Water hickory | 4676 | 4647 | ... | ... | ... | ... | ... | ... | ... | 13 | 12 | 5 | ... |
| Other hickories | 226503 | 126080 | 57794 | 22461 | 11118 | 5123 | 1955 | 1204 | 526 | 149 | 37 | 53 | 4 |
| Persimmon | 10966 | 9753 | 468 | 516 | 175 | ... | 53 | ... | ... | ... | ... | ... | ... |
| Hard maple | 1733 | 1033 | 516 | ... | ... | 134 | 27 | 23 | ... | ... | ... | ... | ... |
| Soft maple | 52046 | 40007 | 9473 | 1696 | 334 | 132 | 224 | 81 | 63 | 22 | 10 | 6 | ... |
| Boxelder | 3896 | 1701 | 1016 | 496 | 131 | 142 | 122 | 96 | 119 | 27 | 13 | 34 | ... |
| Sweetgum | 24670 | 16155 | 4623 | 1781 | 823 | 446 | 306 | 259 | 160 | 61 | 10 | 41 | 4 |
| Blackgum | 26728 | 19375 | 4377 | 1292 | 695 | 278 | 269 | 160 | 161 | 38 | 40 | 43 | ... |
| White ash | 21796 | 14755 | 3098 | 1647 | 926 | 690 | 246 | 181 | 139 | 37 | 31 | 46 | ... |
| Other ashes | 22165 | 8421 | 7303 | 2590 | 2168 | 652 | 543 | 161 | 117 | 125 | 44 | 40 | ... |
| Sycamore | 1873 | 419 | 516 | 239 | 121 | 233 | 149 | 26 | 81 | 16 | 24 | 39 | 9 |
| Cottonwood | 1865 | ... | ... | 274 | 631 | 330 | 198 | 111 | 30 | 52 | 53 | 180 | 6 |
| Basswood | 189 | ... | ... | 77 | 54 | 33 | 25 | ... | ... | ... | ... | ... | ... |
| Willow | 2807 | 516 | 1549 | 280 | 220 | 71 | 25 | 48 | 31 | 26 | 23 | 17 | ... |
| Black walnut | 249 | ... | ... | 115 | ... | 99 | ... | 24 | ... | ... | ... | 11 | ... |
| Black cherry | 5392 | 4082 | 516 | 240 | 123 | 301 | 92 | 20 | 17 | ... | ... | ... | ... |
| American elm | 11664 | 6698 | 1792 | 1242 | 598 | 388 | 464 | 289 | 93 | 28 | 33 | 25 | 16 |
| Other elms | 162764 | 112236 | 32636 | 10583 | 3969 | 2151 | 602 | 352 | 98 | 97 | 11 | 26 | 4 |
| River birch | 2967 | 1549 | 468 | 596 | 157 | 36 | ... | 82 | 50 | ... | ... | 27 | ... |
| Hackberry | 27798 | 18658 | 5545 | 1589 | 860 | 701 | 80 | 212 | 76 | 38 | 38 | ... | ... |
| Black locust | 553 | 553 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other locusts | 6017 | 3439 | 1137 | 475 | 397 | 339 | 85 | 87 | 19 | 40 | ... | ... | ... |
| Sassafras | 4681 | 3678 | 553 | 450 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Dogwood | 36401 | 29992 | 6098 | 310 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Holly | 4833 | 4758 | ... | ... | ... | 38 | ... | 23 | 14 | ... | ... | ... | ... |
| Other commercial | 23505 | 16008 | 5387 | 1032 | 559 | 303 | 92 | 57 | 55 | 13 | ... | ... | ... |
| Total hardwoods | 1299730 | 747580 | 317042 | 114376 | 53561 | 29742 | 15791 | 10582 | 5129 | 2788 | 1452 | 1580 | 107 |
| Noncommercial | 220514 | 157455 | 38506 | 13098 | 6182 | 3248 | 1113 | 572 | 218 | 83 | ... | 39 | ... |
| All species | 2179268 | 1259257 | 521126 | 192034 | 91050 | 52418 | 30198 | 17674 | 7878 | 3906 | 1754 | 1865 | 107 |

Table 33 – *Number of growing-stock trees on timberland by detailed species and diameter class, Southeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Thousand trees* | | | | | | | | | | |
| Shortleaf pine | 107813 | 42565 | 26681 | 17702 | 11937 | 5731 | 2254 | 730 | 164 | 50 | ... |
| Loblolly pine | 19416 | 14549 | 2244 | 725 | 716 | 488 | 216 | 217 | 79 | 181 | ... |
| Redcedar | 2192 | 1220 | 637 | 173 | 63 | 86 | ... | 13 | ... | ... | ... |
| Total softwoods | 129420 | 58334 | 29562 | 18600 | 12716 | 6305 | 2470 | 959 | 243 | 231 | ... |
| Select white oaks | 11312 | 5164 | 3043 | 1839 | 414 | 361 | 228 | 139 | 73 | 48 | 3 |
| Select red oaks | 5634 | 3075 | 934 | 673 | 346 | 292 | 93 | 82 | 52 | 82 | 5 |
| Other white oaks | 47344 | 25201 | 11583 | 5533 | 2304 | 1580 | 677 | 270 | 101 | 94 | ... |
| Other red oaks | 15643 | 6753 | 3693 | 1904 | 1354 | 824 | 453 | 346 | 214 | 103 | ... |
| Sweet pecan | 489 | 187 | 82 | 46 | ... | 92 | 17 | 14 | 11 | 40 | ... |
| Water hickory | 5 | ... | ... | ... | ... | ... | ... | ... | ... | 5 | ... |
| Other hickories | 21420 | 11360 | 5642 | 2591 | 929 | 557 | 258 | 39 | 21 | 23 | ... |
| Persimmon | 377 | 351 | ... | ... | 25 | ... | ... | ... | ... | ... | ... |
| Hard maple | 42 | ... | ... | 42 | ... | ... | ... | ... | ... | ... | ... |
| Soft maple | 1075 | 793 | 215 | 46 | ... | 21 | ... | ... | ... | ... | ... |
| Boxelder | 373 | 202 | 64 | 53 | ... | 36 | 18 | ... | ... | ... | ... |
| Sweetgum | 2489 | 1066 | 416 | 363 | 255 | 222 | 95 | 48 | ... | 24 | ... |
| Blackgum | 1264 | 424 | 395 | 170 | 89 | 116 | 47 | 12 | 10 | ... | ... |
| White ash | 1756 | 634 | 435 | 336 | 146 | 115 | 63 | 12 | 10 | 6 | ... |
| Other ashes | 4105 | 1750 | 1381 | 343 | 359 | 71 | 51 | 111 | 21 | 16 | ... |
| Sycamore | 592 | 89 | 51 | 233 | 88 | 26 | 65 | 16 | 24 | ... | ... |
| Cottonwood | 1766 | 184 | 631 | 330 | 198 | 111 | 30 | 52 | 53 | 173 | 4 |
| Basswood | 54 | ... | 54 | ... | ... | ... | ... | ... | ... | ... | ... |
| Willow | 224 | 155 | ... | 30 | ... | ... | 16 | 13 | 11 | ... | ... |
| Black walnut | 35 | ... | ... | ... | ... | 24 | ... | ... | ... | 11 | ... |
| Black cherry | 435 | 112 | 123 | 130 | 33 | 20 | 17 | ... | ... | ... | ... |
| American elm | 1391 | 763 | 151 | 179 | 116 | 89 | 53 | 15 | 9 | 16 | ... |
| Other elms | 7058 | 3753 | 1717 | 1087 | 284 | 164 | 32 | 11 | 11 | ... | ... |
| River birch | 290 | 135 | 87 | ... | ... | 37 | 17 | ... | ... | 14 | ... |
| Hackberry | 1799 | 771 | 462 | 448 | ... | 107 | ... | ... | 11 | ... | ... |
| Other locusts | 474 | ... | 215 | 207 | 30 | 22 | ... | ... | ... | ... | ... |
| Sassafras | 115 | 115 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other commercial | 108 | ... | 57 | 51 | ... | ... | ... | ... | ... | ... | ... |
| Total hardwoods | 127670 | 63038 | 31432 | 16633 | 6972 | 4887 | 2230 | 1180 | 632 | 655 | 11 |
| All species | 257091 | 121372 | 60994 | 35233 | 19688 | 11192 | 4700 | 2139 | 875 | 886 | 11 |

Table 34 – *Volume of growing-stock trees on timberland by species and diameter class, Southeast Oklahoma, 1986*

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | *Million cubic feet* | | | | | | | | | | |
| Shortleaf pine | 835.0 | 91.5 | 139.6 | 181.1 | 184.4 | 130.3 | 67.6 | 28.7 | 8.3 | 3.6 | ... |
| Loblolly pine | 110.6 | 21.8 | 8.5 | 8.3 | 12.8 | 13.2 | 8.4 | 11.2 | 6.4 | 19.9 | ... |
| Redcedar | 9.6 | 2.6 | 2.3 | 1.8 | 0.9 | 1.6 | ... | 0.5 | ... | ... | ... |
| Total softwoods | 955.2 | 116.0 | 150.4 | 191.2 | 198.1 | 145.0 | 76.0 | 40.4 | 14.7 | 23.4 | ... |
| Select white oaks | 77.3 | 13.9 | 15.4 | 17.5 | 6.5 | 8.1 | 5.1 | 5.3 | 2.8 | 2.5 | 0.2 |
| Select red oaks | 38.7 | 7.2 | 4.6 | 4.9 | 4.2 | 5.4 | 3.0 | 2.0 | 2.2 | 4.7 | 0.4 |
| Other white oaks | 214.5 | 49.1 | 48.1 | 39.9 | 26.2 | 23.8 | 13.8 | 7.1 | 3.1 | 3.5 | ... |
| Other red oaks | 124.8 | 13.5 | 16.8 | 16.2 | 19.7 | 17.6 | 11.8 | 12.6 | 10.5 | 6.1 | ... |
| Sweet pecan | 6.9 | 0.3 | 0.3 | 0.3 | ... | 1.8 | 0.6 | 0.5 | 0.4 | 2.7 | ... |
| Water hickory | 0.5 | ... | ... | ... | ... | ... | ... | ... | ... | 0.5 | ... |
| Other hickories | 95.1 | 19.4 | 23.3 | 19.9 | 10.9 | 10.7 | 6.8 | 1.1 | 1.1 | 1.8 | ... |
| Persimmon | 1.0 | 0.6 | ... | ... | 0.4 | ... | ... | ... | ... | ... | ... |
| Hard maple | 0.4 | ... | ... | 0.4 | ... | ... | ... | ... | ... | ... | ... |
| Soft maple | 3.3 | 1.7 | 1.1 | 0.3 | ... | 0.3 | ... | ... | ... | ... | ... |
| Boxelder | 2.3 | 0.5 | 0.3 | 0.3 | ... | 0.8 | 0.4 | ... | ... | ... | ... |
| Sweetgum | 24.0 | 2.1 | 2.3 | 3.2 | 4.9 | 5.2 | 3.2 | 1.5 | ... | 1.7 | ... |
| Blackgum | 9.3 | 1.0 | 1.6 | 1.2 | 1.0 | 2.3 | 1.4 | 0.2 | 0.6 | ... | ... |
| White ash | 12.2 | 1.2 | 1.9 | 2.9 | 1.8 | 2.0 | 1.4 | 0.2 | 0.5 | 0.2 | ... |
| Other ashes | 28.7 | 4.6 | 8.1 | 3.5 | 4.9 | 1.3 | 1.1 | 3.3 | 0.8 | 1.2 | ... |
| Sycamore | 9.9 | 0.5 | 0.4 | 2.6 | 1.6 | 0.7 | 2.2 | 0.6 | 1.4 | ... | ... |
| Cottonwood | 40.2 | 0.5 | 3.2 | 3.2 | 3.3 | 2.7 | 1.3 | 3.0 | 4.7 | 17.9 | 0.6 |
| Basswood | 0.2 | ... | 0.2 | ... | ... | ... | ... | ... | ... | ... | ... |
| Willow | 1.5 | 0.2 | ... | 0.2 | ... | ... | 0.4 | 0.3 | 0.4 | ... | ... |
| Black walnut | 0.8 | ... | ... | ... | ... | 0.4 | ... | ... | ... | 0.4 | ... |
| Black cherry | 2.9 | 0.3 | 0.6 | 0.9 | 0.4 | 0.4 | 0.4 | ... | ... | ... | ... |
| American elm | 9.5 | 1.4 | 0.5 | 1.7 | 1.3 | 1.7 | 1.3 | 0.4 | 0.6 | 0.7 | ... |
| Other elms | 31.4 | 7.6 | 7.4 | 8.1 | 3.2 | 3.5 | 0.8 | 0.5 | 0.3 | ... | ... |
| River birch | 2.5 | 0.2 | 0.4 | ... | ... | 0.9 | 0.4 | ... | ... | 0.6 | ... |
| Hackberry | 8.3 | 1.2 | 1.8 | 2.7 | ... | 2.3 | ... | ... | 0.3 | ... | ... |
| Other locusts | 3.5 | ... | 1.1 | 1.7 | 0.4 | 0.4 | ... | ... | ... | ... | ... |
| Sassafras | 0.2 | 0.2 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other commercial | 0.4 | ... | 0.2 | 0.3 | ... | ... | ... | ... | ... | ... | ... |
| Total hardwoods | 750.3 | 126.9 | 139.4 | 131.7 | 90.6 | 92.2 | 55.3 | 38.5 | 29.8 | 44.6 | 1.3 |
| All species | 1705.5 | 242.9 | 289.8 | 322.9 | 288.6 | 237.2 | 131.4 | 78.9 | 44.5 | 68.0 | 1.3 |

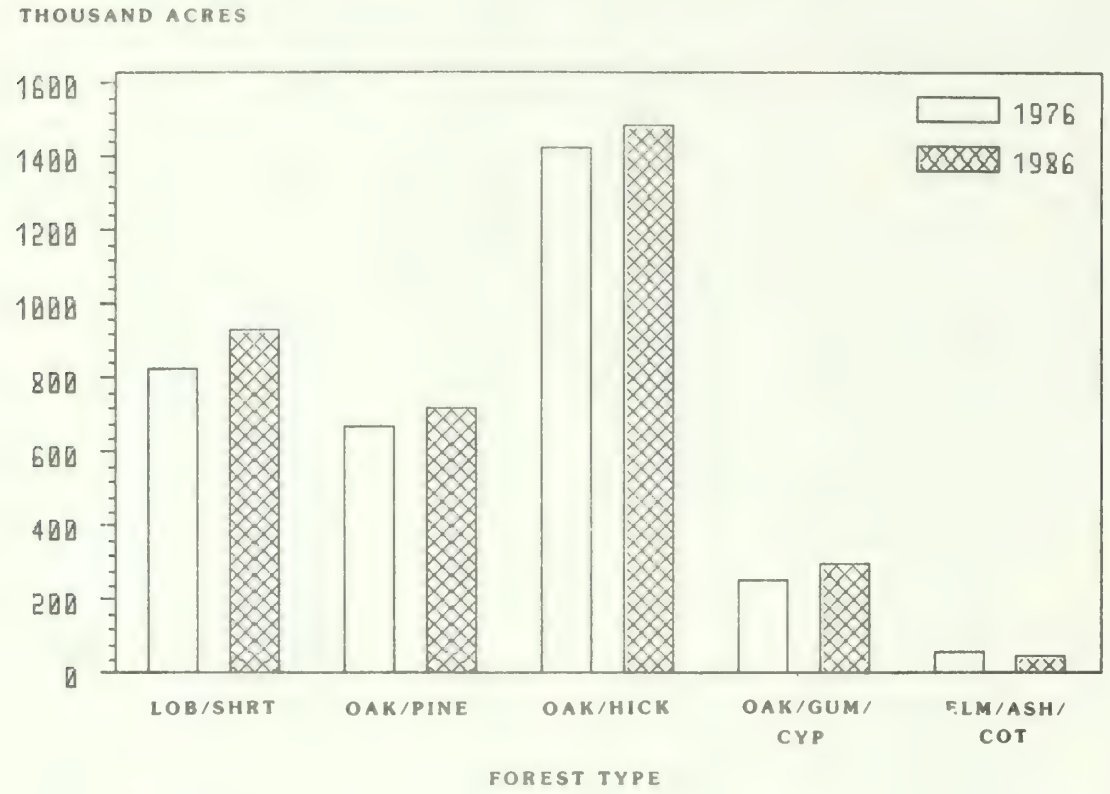
**Table 35** – *Volume of growing stock in the saw log portion of sawtimber trees on timberland by detailed species and diameter class, Southeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | | | |
| Shortleaf pine | 539.7 | 152.0 | 167.3 | 120.1 | 62.3 | 26.6 | 7.9 | 3.5 | ... |
| Loblolly pine | 74.7 | 6.9 | 11.4 | 12.3 | 8.0 | 10.9 | 6.2 | 19.0 | ... |
| Redcedar | 4.0 | 1.4 | 0.7 | 1.5 | ... | 0.4 | ... | ... | ... |
| Total softwoods | 618.5 | 160.4 | 179.4 | 133.9 | 70.4 | 37.9 | 14.1 | 22.5 | ... |
| Select white oaks | 26.4 | ... | 5.2 | 6.9 | 4.6 | 4.8 | 2.4 | 2.2 | 0.2 |
| Select red oaks | 20.1 | ... | 3.6 | 4.8 | 2.8 | 1.8 | 2.0 | 4.6 | 0.4 |
| Other white oaks | 70.2 | ... | 23.5 | 21.7 | 12.6 | 6.4 | 2.8 | 3.2 | ... |
| Other red oaks | 66.7 | ... | 14.7 | 15.6 | 10.2 | 11.1 | 9.7 | 5.3 | ... |
| Sweet pecan | 4.9 | ... | ... | 1.6 | 0.4 | 0.4 | 0.4 | 2.1 | ... |
| Water hickory | 0.5 | ... | ... | ... | ... | ... | ... | 0.5 | ... |
| Other hickories | 27.5 | ... | 8.9 | 9.2 | 5.9 | 0.9 | 0.9 | 1.7 | ... |
| Persimmon | 0.3 | ... | 0.3 | ... | ... | ... | ... | ... | ... |
| Soft maple | 0.2 | ... | ... | 0.2 | ... | ... | ... | ... | ... |
| Boxelder | 1.1 | ... | ... | 0.7 | 0.4 | ... | ... | ... | ... |
| Sweetgum | 13.9 | ... | 3.6 | 4.4 | 2.8 | 1.4 | ... | 1.6 | ... |
| Blackgum | 4.3 | ... | 0.7 | 1.6 | 1.3 | 0.2 | 0.5 | ... | ... |
| White ash | 5.5 | ... | 1.4 | 1.9 | 1.4 | 0.2 | 0.4 | 0.2 | ... |
| Other ashes | 11.1 | ... | 3.9 | 1.1 | 1.0 | 3.1 | 0.8 | 1.2 | ... |
| Sycamore | 5.4 | ... | 1.1 | 0.5 | 1.9 | 0.6 | 1.2 | ... | ... |
| Cottonwood | 30.3 | ... | 2.3 | 2.1 | 0.9 | 2.8 | 4.4 | 17.0 | 0.6 |
| Willow | 0.8 | ... | ... | ... | 0.3 | 0.2 | 0.3 | ... | ... |
| Black walnut | 0.7 | ... | ... | 0.3 | ... | ... | ... | 0.4 | ... |
| Black cherry | 1.0 | ... | 0.3 | 0.4 | 0.3 | ... | ... | ... | ... |
| American elm | 5.4 | ... | 1.3 | 1.6 | 1.1 | 0.4 | 0.6 | 0.5 | ... |
| Other elms | 7.1 | ... | 2.8 | 3.0 | 0.6 | 0.4 | 0.2 | ... | ... |
| River birch | 1.7 | ... | ... | 0.7 | 0.4 | ... | ... | 0.6 | ... |
| Hackberry | 2.1 | ... | ... | 1.9 | ... | ... | 0.2 | ... | ... |
| Other locusts | 0.5 | ... | 0.3 | 0.2 | ... | ... | ... | ... | ... |
| Total hardwoods | 307.7 | ... | 74.0 | 80.4 | 49.0 | 34.9 | 26.9 | 41.1 | 1.3 |
| All species | 926.1 | 160.4 | 253.5 | 214.3 | 119.3 | 72.8 | 41.1 | 63.6 | 1.3 |

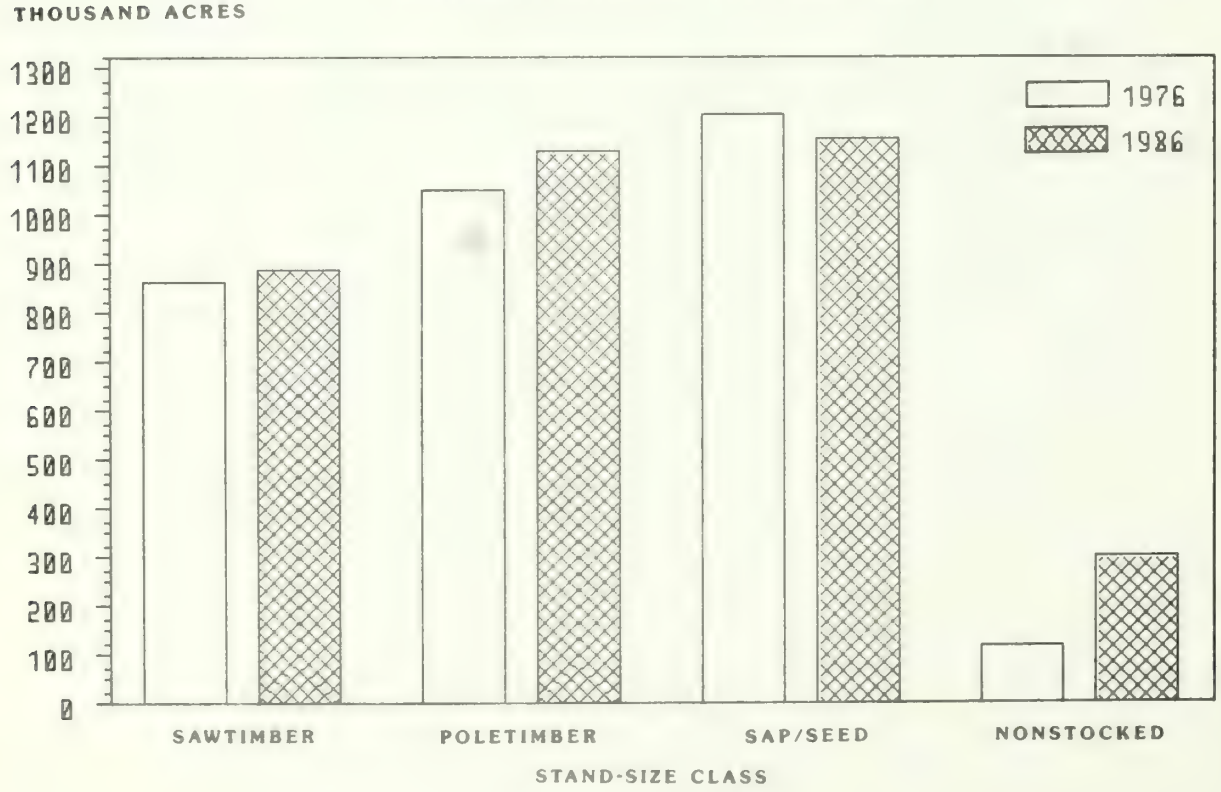
**Table 36** – *Volume of timber on timberland by species and class of timber, Southeast Oklahoma, 1986*

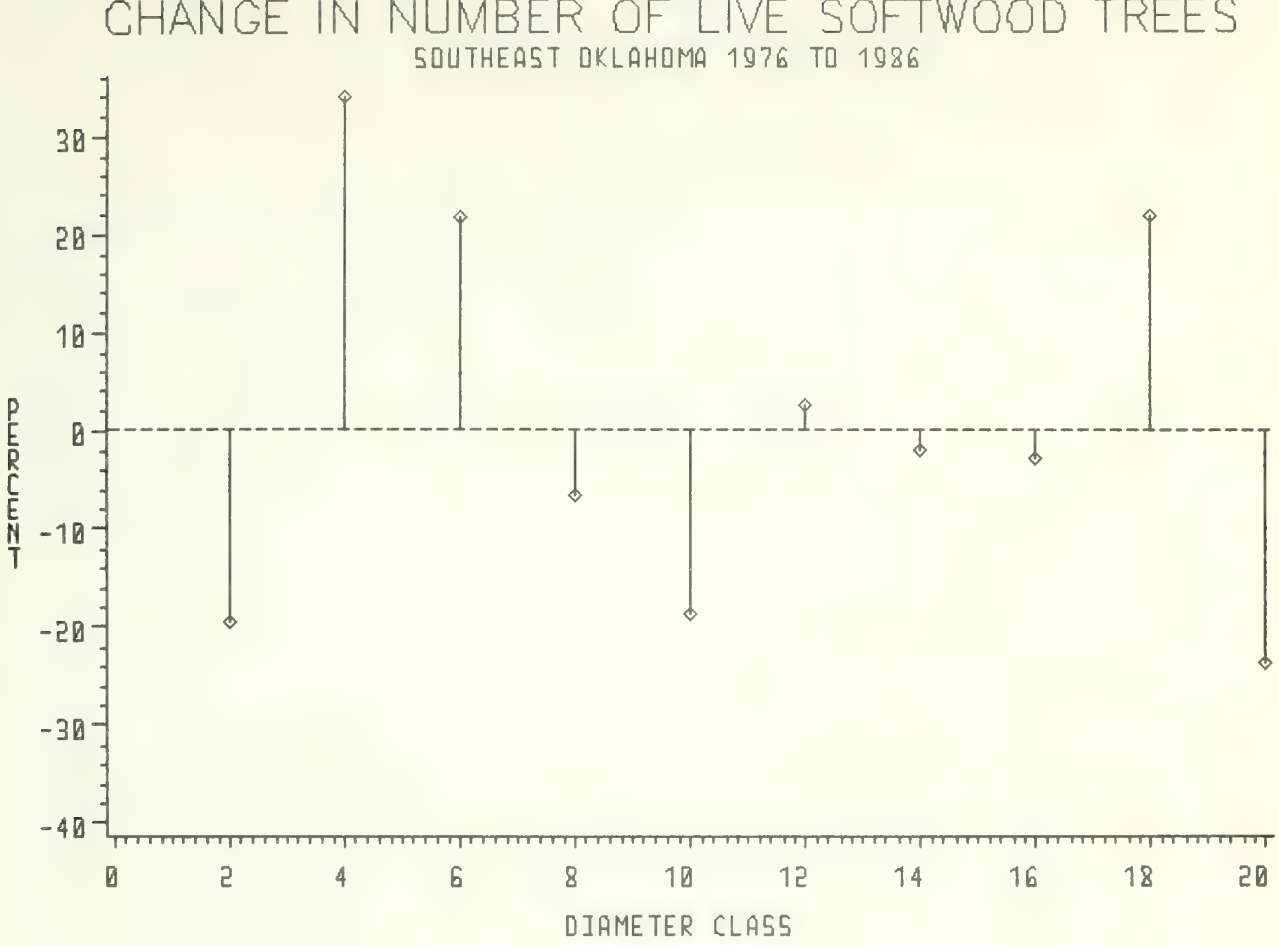
| Species | All live | Growing stock | Rough | Rotten |
|---|---|---|---|---|
| | | *Million cubic feet* | | |
| Shortleaf pine | 859.4 | 835.0 | 22.6 | 1.7 |
| Loblolly pine | 115.1 | 110.6 | 4.5 | ... |
| Redcedar | 12.9 | 9.6 | 2.9 | 0.3 |
| Cypress | 0.4 | ... | 0.4 | ... |
| Total softwoods | 987.7 | 955.2 | 30.4 | 2.1 |
| Select white oaks | 104.4 | 77.3 | 23.3 | 3.9 |
| Select red oaks | 55.3 | 38.7 | 13.8 | 2.7 |
| Other white oaks | 371.8 | 214.5 | 138.7 | 18.6 |
| Other red oaks | 170.1 | 124.8 | 37.7 | 7.7 |
| Sweet pecan | 10.7 | 6.9 | 3.2 | 0.6 |
| Water hickory | 0.8 | 0.5 | ... | 0.3 |
| Other hickories | 154.4 | 95.1 | 52.4 | 6.9 |
| Persimmon | 2.1 | 1.0 | 1.0 | ... |
| Hard maple | 1.1 | 0.4 | 0.4 | 0.4 |
| Soft maple | 9.6 | 3.3 | 4.8 | 1.5 |
| Boxelder | 9.3 | 2.3 | 6.3 | 0.7 |
| Sweetgum | 31.1 | 24.0 | 5.0 | 2.1 |
| Blackgum | 16.8 | 9.3 | 4.8 | 2.8 |
| White ash | 21.7 | 12.2 | 9.4 | ... |
| Other ashes | 41.4 | 28.7 | 11.4 | 1.4 |
| Sycamore | 14.5 | 9.9 | 3.9 | 0.7 |
| Cottonwood | 41.0 | 40.2 | 0.3 | 0.4 |
| Basswood | 0.7 | 0.2 | 0.3 | 0.3 |
| Willow | 4.9 | 1.5 | 3.2 | 0.2 |
| Black walnut | 1.3 | 0.8 | 0.5 | ... |
| Black cherry | 4.6 | 2.9 | 1.1 | 0.6 |
| American elm | 20.5 | 9.5 | 9.2 | 1.8 |
| Other elms | 59.4 | 31.4 | 27.2 | 0.8 |
| River birch | 5.6 | 2.5 | 2.5 | 0.6 |
| Hackberry | 16.5 | 8.3 | 7.1 | 1.2 |
| Other locusts | 7.9 | 3.5 | 3.7 | 0.6 |
| Sassafras | 0.2 | 0.2 | ... | ... |
| Dogwood | 0.2 | ... | 0.2 | ... |
| Holly | 0.4 | ... | 0.2 | 0.2 |
| Other commercial | 4.3 | 0.4 | 3.5 | 0.4 |
| Total hardwoods | 1182.7 | 750.3 | 375.1 | 57.3 |
| Noncommercial | 62.2 | ... | 62.2 | ... |
| All species | 2232.6 | 1705.5 | 467.8 | 59.4 |

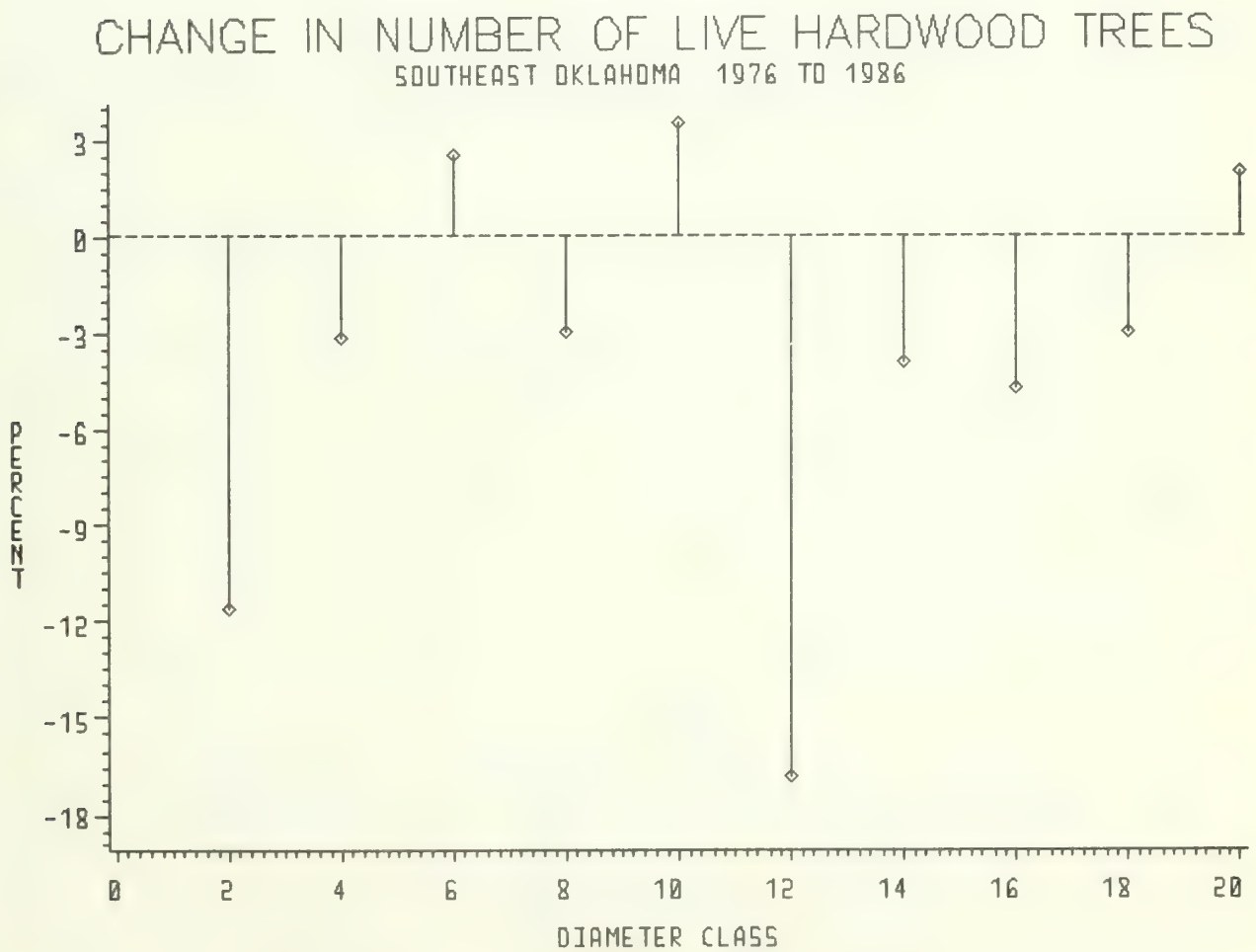
## AREA OF TIMBERLAND BY FOREST TYPE
SOUTHEAST OKLAHOMA 1976 AND 1986




## AREA OF TIMBERLAND BY STAND-SIZE CLASS
SOUTHEAST OKLAHOMA 1976 AND 1986

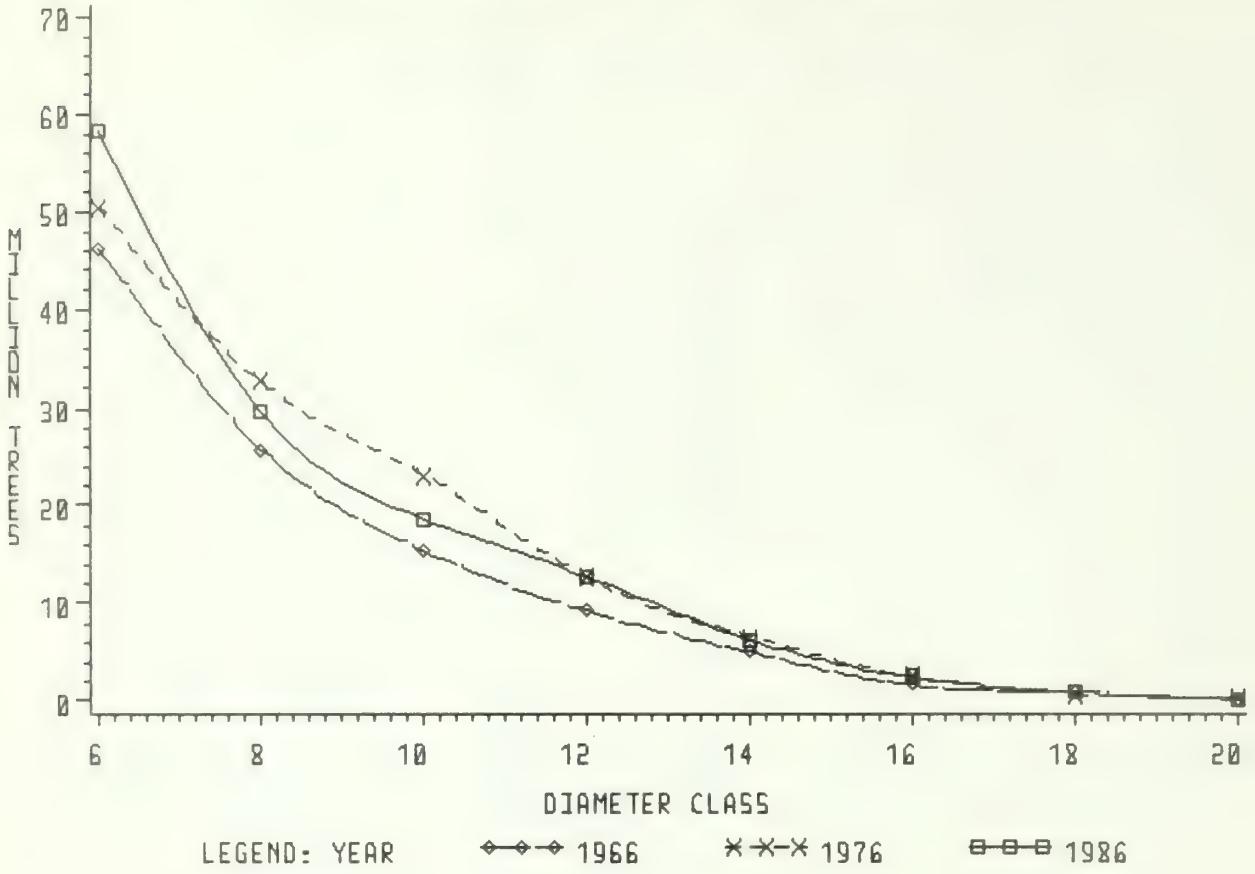



CHANGE IN NUMBER OF LIVE SOFTWOOD TREES
SOUTHEAST OKLAHOMA 1976 TO 1986
PERCENT
30
20
10
0
-10
-20
-30
-40
0
2
4
6
8
10
12
14
16
18
20
DIAMETER CLASS


CHANGE IN NUMBER OF LIVE HARDWOOD TREES
SOUTHEAST OKLAHOMA 1976 TO 1986
PERCENT
3
0
-3
-6
-9
-12
-15
-18
0
2
4
6
8
10
12
14
16
18
20
DIAMETER CLASS

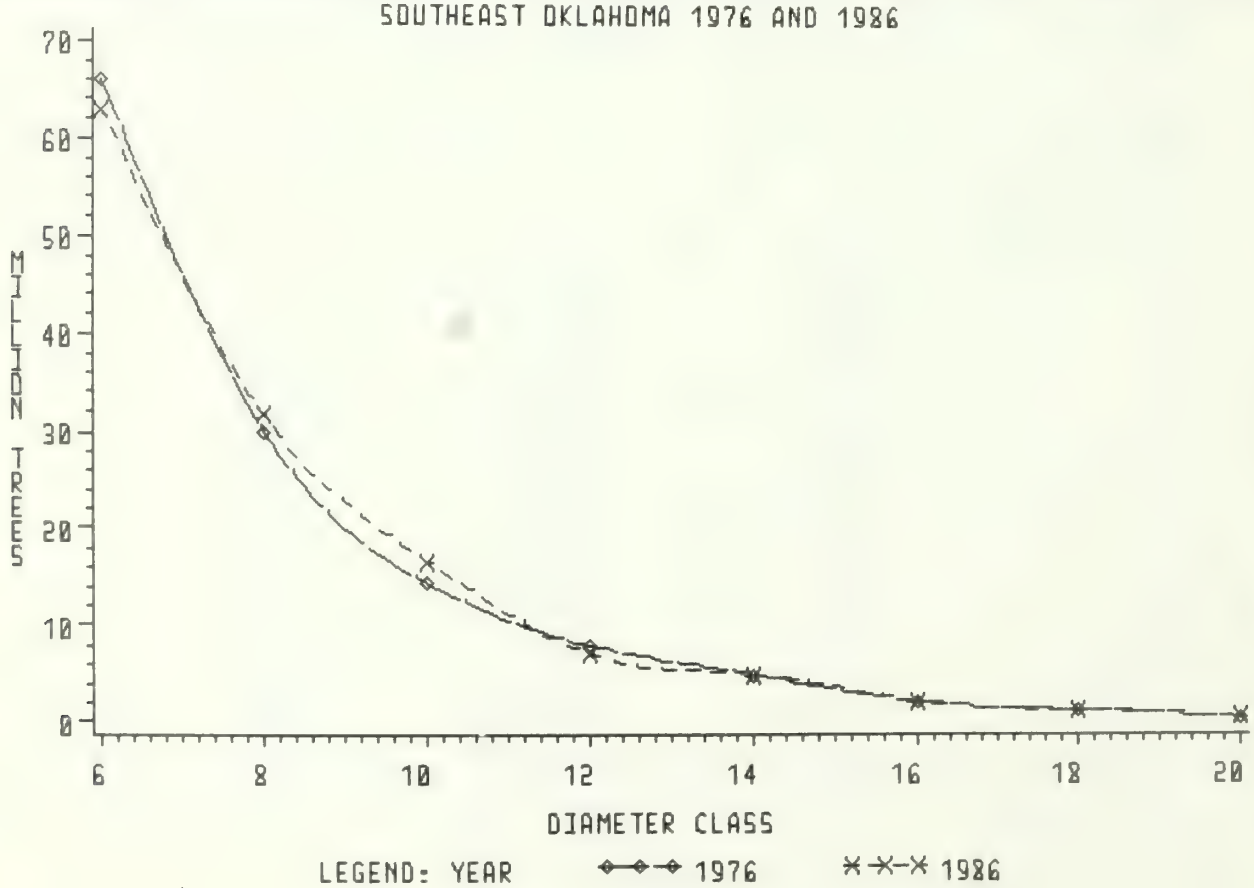
## NUMBER OF SOFTWOOD GROWING STOCK TREES BY DBH CLASS

SOUTHEAST OKLAHOMA 1966, 1976, AND 1986



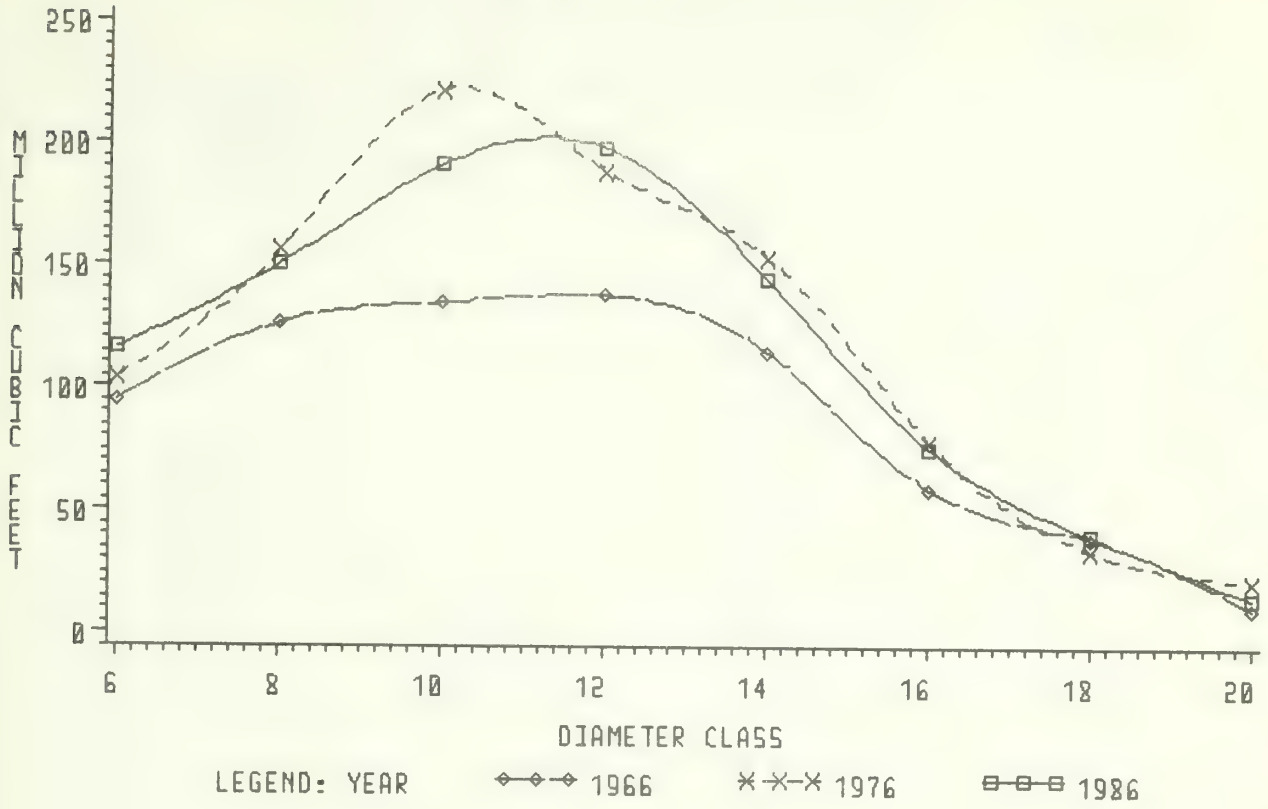

## NUMBER OF HARDWOOD GROWING STOCK TREES BY DBH CLASS

SOUTHEAST OKLAHOMA 1976 AND 1986



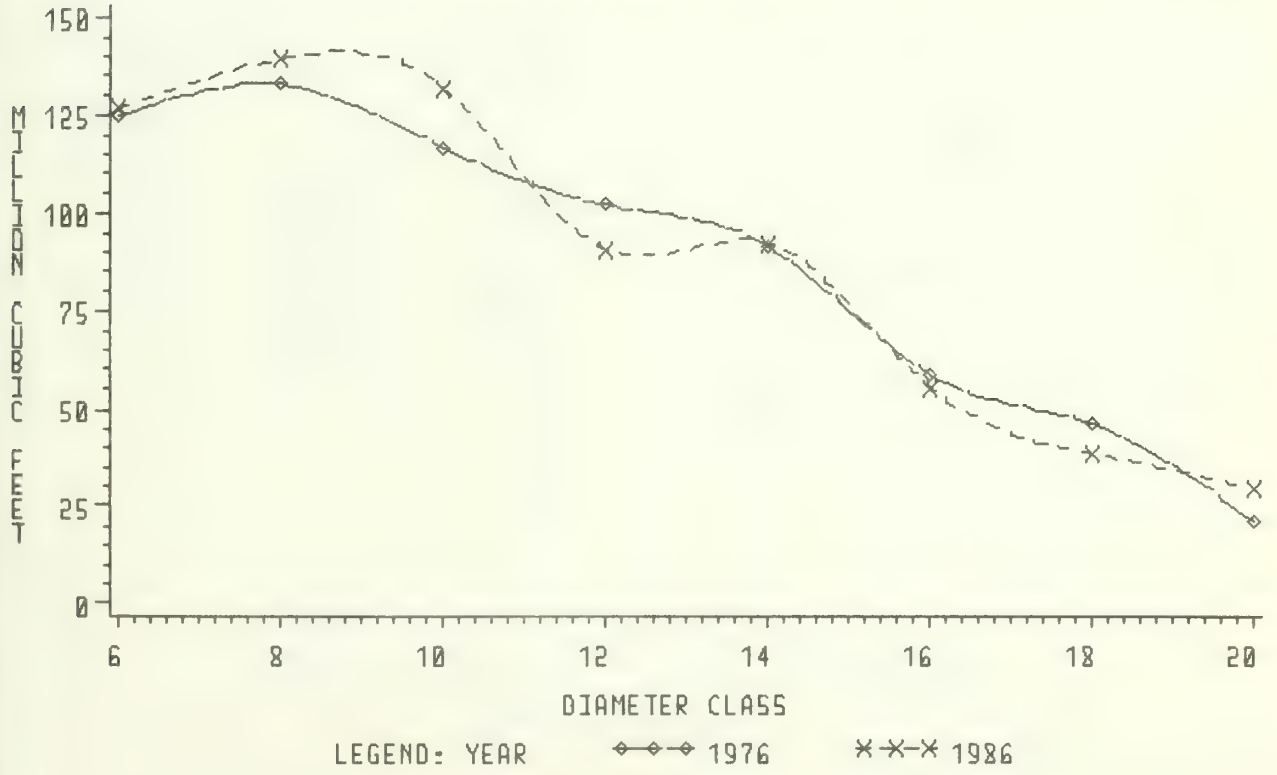
# SOFTWOOD GROWING STOCK VOLUME BY DBH CLASS

SOUTHEAST OKLAHOMA 1966, 1976 AND 1986



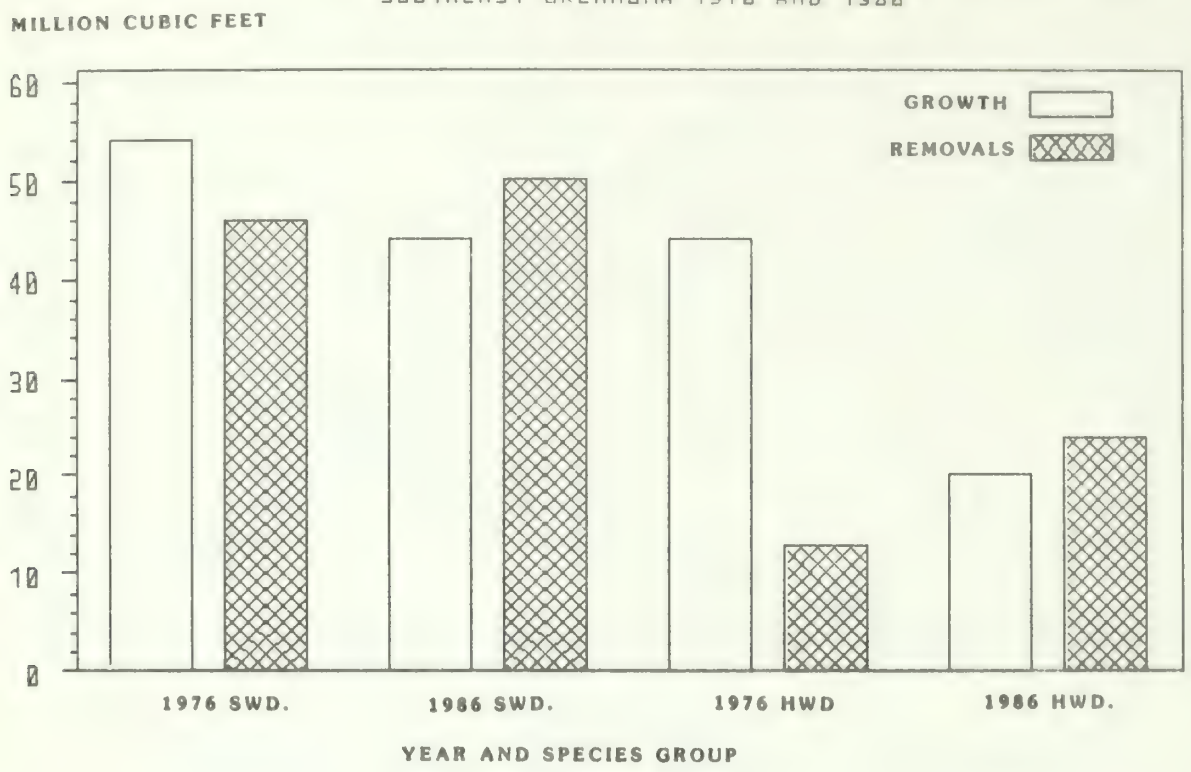

# HARDWOOD GROWING STOCK VOLUME BY DBH CLASS

SOUTHEAST OKLAHOMA 1976 AND 1986



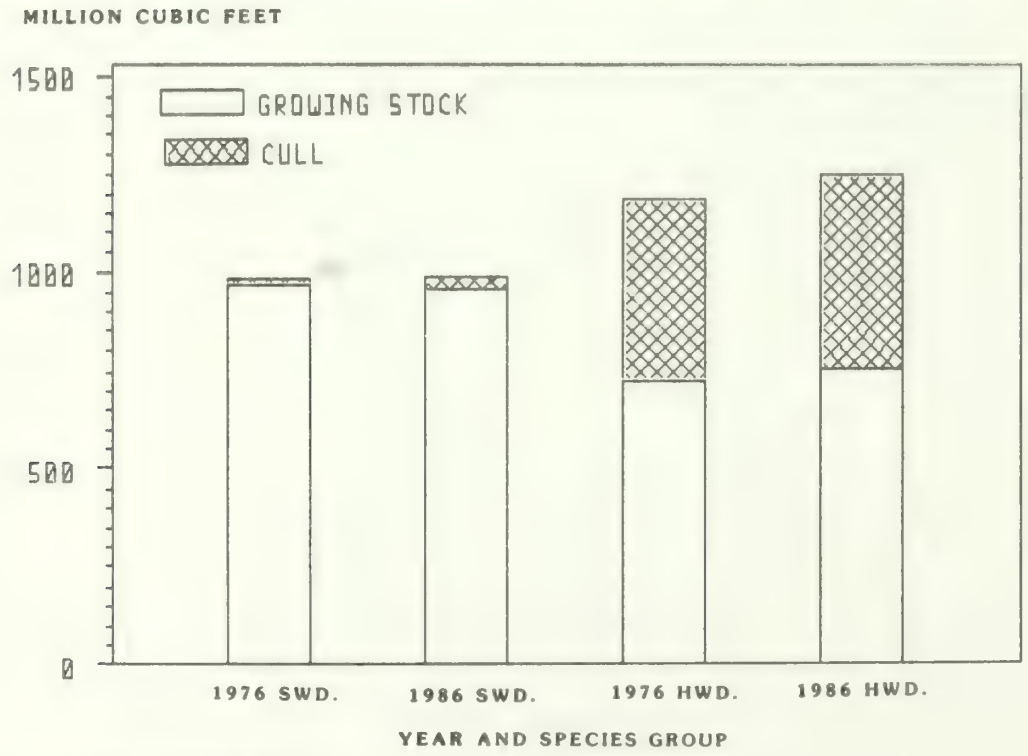
# GROWTH AND REMOVALS BY SPECIES GROUP

SOUTHEAST OKLAHOMA 1976 AND 1986




# TIMBER VOLUME BY TREE CLASS AND SPECIES

SOUTHEAST OKLAHOMA 1976 AND 1986

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Tabulates forest resource information from a new inventory of the Southeast Unit of Oklahoma.

**Additional Keywords**: Area, volume, forest type, stand size, ownership.

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# Forest Statistics for Northeast Oklahoma Counties - 1986

Richard A. Birdsey and Daniel F. Bertelson

CLEMSON UNIVERSITY
APR 9 1987
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## SUMMARY

The Southern Forest Survey, an activity of the Southern Forest Experiment Station Forest Inventory and Analysis work unit, covers the states of Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, east Texas, and the island of Puerto Rico.

This survey is part of the nationwide Forest Survey originally authorized by the McSweeney-McNary Act of 1928. More recent legislation pertinent to the survey mission includes the Forest and Rangeland Renewable Resources Planning Act of 1974 and the Forest and Rangeland Renewable Resources Research Act of 1978. The survey mission is to develop, analyze, and maintain renewable forest resource information. This information is essential for formulation of forest policies and programs.

## ACKNOWLEDGMENTS

The Southern Station gratefully acknowledges the cooperation and assistance provided by the Oklahoma Division of Forestry and forest industries in collecting field data. Appreciation is also expressed for the cooperation of other public agencies and other private landowners in providing access to the sample locations.

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*Core tables are presented in response to the Southern Industrial Forestry Research Council's recommendations. These tables are identical among Forest Inventory and Analysis units in the eastern United States.

**Figure 1.--The Forest Survey Regions of East Oklahoma.**

# Forest Statistics for Northeast Oklahoma Counties - 1986

Richard A. Birdsey and Daniel F. Bertelson

## INTRODUCTION

These tables were derived from data obtained during a 1986 inventory of 8 counties comprising the Northeast Unit of Oklahoma (fig. 1). All comparisons of the 1976 and 1986 forest statistics made in this Bulletin account for this change. The data on forest acreage and timber volume were secured by a systematic sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurement of trees at sample locations. The sample locations were at the intersections of a grid of lines spaced 3 miles apart. At each forest location, per acre estimates were obtained from 10 Basal Area 37.5 point samples.

The sampling methods were developed to provide suitable estimates for east Oklahoma. Estimates for smaller areas are presented, but sampling error increases as the area considered decreases. Sampling errors given in Table I are based on one standard deviation or a probability of two chances out of three. To estimate the sampling error for a combination of counties one can use the following:

$$SE_g = \frac{SE_t \sqrt{X_t}}{\sqrt{X_g}}$$

where:

SE = standard error of estimate (expressed as a percent)
X = variable of interest (area or volume)
g = group of counties to be combined
t = total for the unit

**Table I** – *Sampling errors[1] for timberland, growing stock, and sawtimber, Northeast Oklahoma, 1986*

| County | Timberland | Growing stock | | | Sawtimber volume |
|---|---|---|---|---|---|
| | | Volume | Growth | Removals | |
| | *Percent* | | | | |
| Adair | 2.6 | 11.5 | 13.5 | 40.7 | 14.4 |
| Cherokee | 3.1 | 22.2 | 15.5 | 19.0 | 25.1 |
| Delaware[3] | 2.1 | 10.7 | 24.3 | 22.9 | 13.6 |
| McIntosh | 3.8 | 36.5 | 41.0 | 26.5 | 44.6 |
| Mayes | 2.2 | 26.3 | [2] | ... | 29.1 |
| Muskogee | 3.5 | 18.7 | 15.2 | 48.6 | 23.7 |
| Sequoyah | 3.8 | 14.0 | 24.4 | [2] | 19.2 |
| All counties | 1.2 | 7.9 | 9.1 | 37.5 | 9.4 |

[1] By random-sampling formula.
[2] Sampling error greater than 50.
[3] Ottawa included in Delaware.

## HIGHLIGHTS

### Timberland Area

The northeastern region of Oklahoma is 39 percent forested. Most of the forest land is classified as timberland capable of growing at least 20 cubic feet of wood each year. The area of timberland has increased from 1,077 to 1,266 thousand acres since 1976. The increase in timberland is the result of additions from cropland and pasture, and a reclassification of some forest land from woodland (formerly called unproductive forest) to timberland.

Most of the timberland in Northeast Oklahoma is owned by farmers and other individuals. Timberland in corporate ownership increased from 36 to 133 thousand acres.

Oak-hickory accounts for 88 percent of all timberland in Northeast Oklahoma. Acreage in this type group increased by 19 percent since 1976. Nonstocked timberland also increased, from 51 to 175 thousand acres. The area of the sapling-seedling stand-size class declined from 433 to 284 thousand acres. The areas of poletimber and sawtimber stand-size classes increased by about 100 thousand acres each.

### Number of Trees

The number of live softwood trees is quite small in northeast Oklahoma. The number of live softwoods increased or stayed the same in most diameter classes.

The number of live hardwood trees increased for all diameter classes except the 6-inch class. The increases were the greatest in the larger diameter classes.

### Timber Volume

The volume of softwood growing stock showed no change between 1976 and 1986, although there was some shifting among diameter classes. The volume of hardwood growing stock increased substantially, from 326 to 471 million cubic feet. This continues an increasing trend since 1966. Volume increased across all diameter classes except the 6-inch class. The volume of hardwood sawtimber also increased substantially, from 747 to 1,175 million board feet.

### Growth, Removals and Mortality

The average net annual growth of growing stock for all species rose slightly, from 18.4 to 19.8 million cubic feet. Average annual removals of growing stock also increased, from 3.2 to 8.5 million cubic feet. Average annual mortality of growing stock rose from 2.1 to 3.4 million cubic feet for all species.

Tables 1-25 were developed to provide compat bility among Forest Inventory and Analysis Projects. Tables 26-36 are supplementary tables and may change from unit to unit or state to state to address specific resource issues.

## DEFINITION OF TERMS

*Average annual gross growth.* — Average annual net growth plus average annual mortality.

*Average net annual growth.* — Average net annual volume increase for the intersurvey period.

*Average annual mortality.* — Average annual sound-wood volume of live trees dying from natural causes.

*Average annual removals.* — Average annual net volume of growing-stock trees removed from the inventory by harvesting, cultural operations (such as timber stand improvement), land clearing, or changes in land use.

*Forest type.* — A classification of forest land based upon the species forming a plurality of live-tree stocking.

*Growing-stock trees.* — Live trees of commercial species. Rough and rotten trees are excluded.

*Growing-stock volume.* — The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches in diameter at breast height, from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem, or

to the point where the central stem breaks into limbs.

*Noncommercial species.* — Tree species of typically small size, poor form, or inferior quality, which normally do not develop into trees suitable for industrial wood products.

*Poletimber trees.* — Growing-stock trees of commercial species at least 5.0 inches in diameter at breast height but smaller than sawtimber size.

*Rotten trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of rot.

*Reserved timberland.* — Productive public forest land withdrawn from timber utilization through statute or administrative regulations.

*Rough trees.* — Live trees of commercial species that do not contain at least one 12-foot saw log, now or prospectively, primarily because of roughness or poor form. Also included are all live trees of noncommercial species.

*Sawtimber trees.* — Live trees that are of commercial species, contain at least a 12-foot saw log, and meet regional specifications for freedom from defect. Softwoods must be at least 9.0 inches in diameter at breast height and hardwoods at least 11.0 inches in diameter at breast height.

*Sawtimber volume.* — Sound-wood volume of the saw-log portion of live sawtimber trees in board feet, International 1/4-inch rule and in cubic feet.

*Site class.* — A classification of forest land in terms of inherent capacity to grow crops of industrial wood.

*Stand-size class.* — A classification of forest land based on the size class of growing-stock trees on the sampled area; that is, sawtimber, poletimber, or sapling and seedling.

*Timberland.* — Forest land that is producing, or is capable of producing, crops of industrial wood and not withdrawn from timber utilization. Timberland is synonymous with "commercial forest land" in prior reports.

*Woodland.* — Forest land incapable of yielding crops of industrial wood because of adverse site conditions.

**Table 1** – *Area by county and land class, Northeast Oklahoma, 1986*

| County | All land[1] | Forest land | | | | Nonforest land |
|---|---|---|---|---|---|---|
| | | Total | Timberland[2] | Woodland[3] | Reserved timberland | |
| | *Thousand acres* | | | | | |
| Adair | 369.1 | 205.6 | 205.6 | ... | ... | 163.5 |
| Cherokee | 497.2 | 277.3 | 257.9 | 19.3 | ... | 220.0 |
| Delaware[4] | 816.5 | 270.2 | 270.2 | ... | ... | 546.3 |
| McIntosh | 455.4 | 114.6 | 82.7 | 31.8 | ... | 340.8 |
| Mayes | 437.3 | 130.5 | 130.5 | ... | ... | 306.8 |
| Muskogee | 535.9 | 138.4 | 102.5 | 35.9 | ... | 397.6 |
| Ottawa[4] | ... | ... | ... | ... | ... | ... |
| Sequoyah | 457.7 | 247.8 | 216.8 | 31.0 | ... | 210.0 |
| All counties | 3569.1 | 1384.3 | 1266.3 | 118.0 | ... | 2184.9 |

[1] From U.S. Bureau of the Census.

[2] Forest land (formerly termed commercial forest land) that is producing or capable of producing at least 20 cubic feet of industrial wood per acre per year. Includes areas that may be inaccessible or inoperable by current standards. Excludes reserved timberlands.

[3] Forest land incapable of producing 20 cubic feet of industrial wood per acre per year under natural conditions because of adverse site condition.

[4] Ottawa included in Delaware.

**Table 2** – *Area of timberland by county and ownership class, Northeast Oklahoma, 1986*

| County | All ownerships | National forest | Misc. federal | State | County and municipal | Forest industry[1] | Farmer | Corporate[2] | Individual[2] |
|---|---|---|---|---|---|---|---|---|---|
| | *Thousand acres* | | | | | | | | |
| Adair | 205.6 | ... | ... | ... | ... | ... | 118.4 | 24.9 | 62.3 |
| Cherokee | 257.9 | ... | 19.3 | 32.2 | ... | ... | 154.8 | ... | 51.6 |
| Delaware[3] | 270.2 | ... | ... | 6.6 | 6.6 | ... | 98.9 | 52.7 | 105.5 |
| McIntosh | 82.7 | ... | 12.7 | ... | ... | ... | 25.5 | 6.4 | 38.2 |
| Mayes | 130.5 | ... | 20.6 | 6.9 | ... | ... | 27.5 | 13.7 | 61.8 |
| Muskogee | 102.5 | ... | 35.9 | ... | ... | ... | 20.5 | 10.2 | 35.9 |
| Sequoyah | 216.8 | ... | 24.8 | ... | ... | ... | 86.7 | 24.8 | 80.5 |
| All counties | 1266.3 | ... | 113.3 | 45.7 | 6.6 | ... | 532.1 | 132.8 | 435.7 |

[1] Includes land leased to forest industry.

[2] Indian land will be classed as corporate or individual as defined by the Bureau of Indian Affairs.

[3] Ottawa included in Delaware.

Table 3 – *Area of timberland by county and forest type group, Northeast Oklahoma, 1986*

| County | Total | Forest type group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum cypress | Elm-ash cottonwood |
| | | Planted | Natural | | | | |
| | *Thousand acres* | | | | | | |
| Adair | 205.6 | ... | 12.5 | 6.2 | 186.9 | ... | ... |
| Cherokee | 257.9 | ... | 6.4 | 12.9 | 225.7 | 6.4 | 6.4 |
| Delaware[1] | 270.2 | ... | ... | 6.6 | 257.0 | 6.6 | ... |
| McIntosh | 82.7 | ... | ... | ... | 63.6 | 6.4 | 12.7 |
| Mayes | 130.5 | ... | 6.9 | ... | 109.9 | 13.7 | ... |
| Muskogee | 102.5 | ... | ... | ... | 87.1 | 15.4 | ... |
| Sequoyah | 216.8 | ... | ... | 12.4 | 179.6 | 12.4 | 12.4 |
| All counties | 1266.3 | ... | 25.8 | 38.1 | 1109.9 | 60.9 | 31.6 |

[1] Ottawa included in Delaware.

Table 4 - *Area of timberland by county and stand-size class, Northeast Oklahoma, 1986*

| County | All classes | Stand-size class | | | Nonstocked[1] areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | *Thousand acres* | | | | |
| Adair | 205.6 | 87.2 | 99.7 | 12.5 | 6.2 |
| Cherokee | 257.9 | 70.9 | 129.0 | 51.6 | 6.4 |
| Delaware[2] | 270.2 | 33.0 | 105.5 | 85.7 | 46.1 |
| McIntosh | 82.7 | 12.7 | 6.4 | 57.3 | 6.4 |
| Mayes | 130.5 | 27.5 | 34.3 | 27.5 | 41.2 |
| Muskogee | 102.5 | 20.5 | 56.4 | ... | 25.6 |
| Sequoyah | 216.8 | 24.8 | 99.1 | 49.6 | 43.4 |
| All counties | 1266.3 | 276.6 | 530.3 | 284.0 | 175.4 |

[1] Timberland less than 16.7 percent stocked.

[2] Ottawa included in Delaware.

Table 5 – *Area of timberland by county and site class, Northeast Oklahoma, 1986*

| County | All classes | Site class (cubic feet/acre/year) | | | | |
|---|---|---|---|---|---|---|
| | | >165 | 120-165 | 85-120 | 50-85 | <50 |
| | *Thousand acres* | | | | | |
| Adair | 205.6 | ... | ... | ... | 124.6 | 81.0 |
| Cherokee | 257.9 | ... | 6.4 | 19.3 | 103.2 | 129.0 |
| Delaware[1] | 270.2 | ... | ... | 6.6 | 118.6 | 145.0 |
| McIntosh | 82.7 | ... | ... | ... | 38.2 | 44.5 |
| Mayes | 130.5 | ... | ... | 6.9 | 48.1 | 75.6 |
| Muskogee | 102.5 | ... | ... | 5.1 | 35.9 | 61.5 |
| Sequoyah | 216.8 | ... | ... | 18.6 | 86.7 | 111.5 |
| All counties | 1266.3 | ... | 6.4 | 56.5 | 555.3 | 648.0 |

[1] Ottawa included in Delaware.

Table 6 – *Area of timberland by county and stocking classes of growing-stock trees, Northeast Oklahoma, 1986*

| County | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | >130 | 100-130 | 60-100 | 16.7-60 | <16.7 |
| | *Thousand acres* | | | | | |
| Adair | 205.6 | ... | ... | 81.0 | 118.4 | 6.2 |
| Cherokee | 257.9 | ... | 12.9 | 103.2 | 135.4 | 6.4 |
| Delaware[1] | 270.2 | ... | ... | 19.8 | 204.3 | 46.1 |
| McIntosh | 82.7 | ... | ... | 25.5 | 50.9 | 6.4 |
| Mayes | 130.5 | ... | ... | ... | 89.3 | 41.2 |
| Muskogee | 102.5 | ... | ... | 25.6 | 51.2 | 25.6 |
| Sequoyah | 216.8 | ... | ... | 31.0 | 142.5 | 43.4 |
| All counties | 1266.3 | ... | 12.9 | 286.0 | 792.0 | 175.4 |

[1] Ottawa included in Delaware.

Table 7 – *Area of timberland by forest type and ownership class, Northeast Oklahoma, 1986*

| Forest type[1] | All ownerships | National forest | Other public | Forest industry | Forest industry-leased | Other private |
|---|---|---|---|---|---|---|
| | *Thousand acres* | | | | | |
| Loblolly-shortleaf pine | 25.8 | ... | 6.9 | ... | ... | 18.9 |
| Softwood total | 25.8 | ... | 6.9 | ... | ... | 18.9 |
| Oak-pine | 38.1 | ... | ... | ... | ... | 38.1 |
| Oak-hickory | 1109.9 | ... | 113.4 | ... | ... | 996.5 |
| Oak-gum-cypress | 60.9 | ... | 32.7 | ... | ... | 28.2 |
| Elm-ash-cottonwood | 31.6 | ... | 12.6 | ... | ... | 19.0 |
| Hardwood total | 1240.5 | ... | 158.7 | ... | ... | 1081.7 |
| All types | 1266.3 | ... | 165.6 | ... | ... | 1100.6 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood types.

Table 8 – *Area of timberland by ownership and stocking classes of growing-stock trees, Northeast Oklahoma, 1986*

| Ownership class | All classes | Stocking class (percent) | | | | |
|---|---|---|---|---|---|---|
| | | >130 | 100-130 | 60-100 | 16.7-60 | <16.7 |
| | *Thousand acres* | | | | | |
| Other public | 165.6 | ... | ... | 43.5 | 110.6 | 11.6 |
| Other private | 1100.6 | ... | 12.9 | 242.5 | 681.4 | 163.8 |
| All ownerships | 1266.3 | ... | 12.9 | 286.0 | 792.0 | 175.4 |

Table 9 – *Area of timberland by forest type and stand-size class, Northeast Oklahoma, 1986*

| Forest type[1] | All classes | Stand-size class | | | Nonstocked[2] areas |
|---|---|---|---|---|---|
| | | Sawtimber | Poletimber | Sapling-seedling | |
| | *Thousand acres* | | | | |
| Loblolly-shortleaf pine | 25.8 | 12.7 | 6.9 | 6.2 | ... |
| Softwood total | 25.8 | 12.7 | 6.9 | 6.2 | ... |
| Oak-pine | 38.1 | 12.4 | 12.6 | 13.0 | ... |
| Oak-hickory | 1109.9 | 214.6 | 504.2 | 227.1 | 164.1 |
| Oak-gum-cypress | 60.9 | 30.4 | 6.6 | 12.6 | 11.3 |
| Elm-ash-cottonwood | 31.6 | 6.4 | ... | 25.1 | ... |
| Hardwood total | 1240.5 | 263.9 | 523.4 | 277.8 | 175.4 |
| All types | 1266.3 | 276.6 | 530.3 | 284.0 | 175.4 |

[1] Forest type is based on species plurality of all live trees. Mixed types that in combination contain a majority of hardwood stocking are hardwood type.

[2] Timberland less than 16.7 percent stocked.

Table 10 – *Number of live trees on timberland by species and diameter class, Northeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Thousand trees* | | | | | | | | | | | | |
| Shortleaf-loblolly pine | 24492 | 14492 | 4699 | 1524 | 1406 | 1056 | 823 | 320 | 143 | 29 | ... | ... | ... |
| Other softwoods | 5763 | 3852 | 1188 | 428 | 257 | 38 | ... | ... | ... | ... | ... | ... | ... |
| Total softwoods | 30254 | 18344 | 5886 | 1951 | 1663 | 1094 | 823 | 320 | 143 | 29 | ... | ... | ... |
| Select white oaks | 36815 | 19261 | 9297 | 3268 | 1739 | 1437 | 854 | 368 | 245 | 123 | 92 | 131 | ... |
| Select red oaks | 13253 | 7105 | 583 | 1093 | 1321 | 1208 | 890 | 341 | 228 | 244 | 88 | 104 | 49 |
| Other white oaks | 110177 | 49135 | 30397 | 12523 | 8794 | 3968 | 2230 | 1335 | 884 | 353 | 252 | 306 | ... |
| Other red oaks | 86345 | 40909 | 16871 | 7229 | 7122 | 5385 | 3116 | 2489 | 1479 | 833 | 349 | 535 | 27 |
| Hickory | 100712 | 68926 | 15643 | 7848 | 3588 | 2172 | 1268 | 705 | 283 | 163 | 45 | 63 | 7 |
| Hard maple | 3053 | 2460 | ... | 185 | 165 | 81 | 27 | 108 | 18 | ... | ... | 8 | ... |
| Soft maple | 9151 | 6356 | 1632 | 412 | 155 | 162 | 126 | 115 | 74 | 15 | 67 | 18 | 19 |
| Tupelo-blackgum | 7012 | 4760 | 1209 | 415 | 218 | 85 | 90 | 137 | 69 | ... | 23 | 6 | ... |
| Ash | 11658 | 7146 | 583 | 1818 | 740 | 564 | 393 | 164 | 141 | 52 | 21 | 32 | 4 |
| Cottonwood-aspen | 8235 | 7383 | 568 | 267 | ... | ... | ... | ... | ... | ... | 11 | 6 | ... |
| Black walnut | 7495 | 4202 | 2416 | 235 | 125 | 243 | 83 | 110 | 15 | 14 | 40 | 7 | 4 |
| Other hardwoods | 188704 | 143752 | 26623 | 10501 | 3453 | 2119 | 1052 | 538 | 328 | 78 | 121 | 112 | 24 |
| Total hardwoods | 582610 | 361396 | 105824 | 45795 | 27421 | 17425 | 10130 | 6410 | 3763 | 1875 | 1108 | 1328 | 135 |
| Noncommercial | 82861 | 48151 | 18651 | 6321 | 4400 | 3031 | 900 | 693 | 366 | 250 | 88 | 10 | ... |
| All species | 695725 | 427891 | 130361 | 54067 | 33485 | 21551 | 11853 | 7423 | 4272 | 2154 | 1196 | 1338 | 135 |

**Table 11** – *Number of growing-stock trees on timberland by species and diameter class, Northeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Thousand trees* | | | | | | | | | | | | |
| Shortleaf-loblolly pine | 16807 | 8760 | 3560 | 1080 | 1137 | 1002 | 791 | 320 | 143 | 15 | ... | ... | ... |
| Other softwoods | 5049 | 3382 | 1188 | 314 | 165 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total softwoods | 21856 | 12142 | 4747 | 1394 | 1302 | 1002 | 791 | 320 | 143 | 15 | ... | ... | ... |
| Select white oaks | 11771 | 3424 | 2856 | 2231 | 1383 | 923 | 531 | 211 | 125 | 52 | ... | 35 | ... |
| Select red oaks | 5837 | 1774 | ... | 879 | 1116 | 947 | 515 | 204 | 158 | 122 | 33 | 55 | 34 |
| Other white oaks | 43706 | 6452 | 16265 | 9562 | 6683 | 2630 | 1125 | 580 | 292 | 71 | 22 | 24 | ... |
| Other red oaks | 41077 | 12882 | 9362 | 5229 | 5599 | 3680 | 1752 | 1304 | 653 | 347 | 137 | 122 | 10 |
| Hickory | 32549 | 15127 | 7253 | 5414 | 2202 | 1251 | 714 | 363 | 143 | 57 | ... | 21 | 3 |
| Hard maple | 72 | ... | ... | ... | ... | ... | 27 | 45 | ... | ... | ... | ... | ... |
| Soft maple | 979 | 571 | ... | ... | 68 | 123 | 94 | 25 | 39 | ... | 59 | ... | ... |
| Tupelo-blackgum | 2411 | 1142 | 604 | 251 | 72 | 44 | 90 | 116 | 69 | ... | 23 | ... | ... |
| Ash | 3260 | 1766 | ... | 554 | 336 | 211 | 136 | 120 | 90 | 25 | 21 | ... | ... |
| Cottonwood-aspen | 845 | 568 | ... | 267 | ... | ... | — | ... | ... | ... | 11 | ... | ... |
| Black walnut | 215 | ... | ... | ... | 73 | 37 | 33 | 25 | 15 | 14 | 11 | 7 | ... |
| Other hardwoods | 30836 | 17955 | 5690 | 3517 | 1457 | 1171 | 532 | 232 | 187 | ... | 54 | 35 | 5 |
| Total hardwoods | 173558 | 61661 | 42031 | 27904 | 18989 | 11017 | 5549 | 3224 | 1772 | 688 | 370 | 301 | 52 |
| All species | 195414 | 73803 | 46778 | 29298 | 20291 | 12019 | 6340 | 3544 | 1914 | 703 | 370 | 301 | 52 |

Table 12 – *Volume of growing stock on timberland by species and diameter class, Northeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | | | | | |
| Shortleaf-loblolly pine | 41.0 | 3.1 | 5.8 | 10.2 | 11.5 | 6.4 | 3.6 | 0.4 | ... | ... | ... |
| Other softwoods | 1.2 | 0.4 | 0.7 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total softwoods | 42.2 | 3.6 | 6.5 | 10.2 | 11.5 | 6.4 | 3.6 | 0.4 | ... | ... | ... |
| Select white oaks | 38.5 | 5.6 | 7.0 | 8.1 | 7.2 | 4.3 | 2.9 | 1.5 | ... | 1.9 | ... |
| Select red oaks | 49.8 | 1.7 | 5.8 | 9.6 | 8.0 | 4.3 | 4.5 | 4.7 | 1.8 | 3.9 | 5.5 |
| Other white oaks | 96.1 | 19.5 | 27.6 | 19.2 | 11.6 | 9.3 | 5.7 | 1.6 | 0.6 | 1.0 | ... |
| Other red oaks | 147.6 | 10.9 | 25.8 | 29.4 | 22.3 | 22.4 | 15.2 | 10.0 | 4.8 | 5.8 | 0.9 |
| Hickory | 54.0 | 10.3 | 10.4 | 9.6 | 9.4 | 7.2 | 3.1 | 1.9 | ... | 1.6 | 0.5 |
| Hard maple | 1.1 | ... | ... | ... | 0.4 | 0.7 | ... | ... | ... | ... | ... |
| Soft maple | 8.6 | ... | 0.3 | 1.5 | 1.5 | 0.7 | 1.2 | ... | 3.5 | ... | ... |
| Tupelo-blackgum | 7.6 | 0.6 | 0.3 | 0.3 | 1.1 | 2.2 | 1.9 | ... | 1.1 | ... | ... |
| Ash | 14.0 | 2.1 | 1.4 | 1.9 | 1.7 | 2.4 | 2.7 | 1.0 | 0.8 | ... | ... |
| Cottonwood-aspen | 0.7 | 0.4 | ... | ... | ... | ... | ... | ... | 0.3 | ... | ... |
| Black walnut | 3.1 | ... | 0.3 | 0.3 | 0.4 | 0.5 | 0.6 | 0.2 | 0.5 | 0.4 | ... |
| Other hardwoods | 50.4 | 7.9 | 7.7 | 9.7 | 8.1 | 4.7 | 5.6 | ... | 2.3 | 3.2 | 1.1 |
| Total hardwoods | 471.4 | 59.0 | 86.6 | 89.5 | 71.6 | 58.9 | 43.4 | 20.9 | 15.7 | 17.7 | 8.0 |
| All species | 513.6 | 62.6 | 93.1 | 99.7 | 83.1 | 65.2 | 47.1 | 21.4 | 15.7 | 17.7 | 8.0 |

**Table 13** – *Volume of growing stock in the saw log portion of sawtimber[1] trees on timberland by species and diameter class, Northeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | | | |
| Shortleaf-loblolly pine | 29.0 | 8.6 | 10.6 | 6.0 | 3.5 | 0.4 | ... | ... | ... |
| Total softwoods | 29.0 | 8.6 | 10.6 | 6.0 | 3.5 | 0.4 | ... | ... | ... |
| Select white oaks | 14.5 | ... | 5.6 | 3.5 | 2.6 | 1.2 | ... | 1.5 | ... |
| Select red oaks | 28.2 | ... | 6.5 | 3.7 | 4.0 | 4.2 | 1.5 | 3.4 | 5.0 |
| Other white oaks | 26.2 | ... | 10.0 | 8.1 | 5.2 | 1.4 | 0.6 | 0.9 | ... |
| Other red oaks | 69.2 | ... | 17.7 | 19.4 | 13.2 | 8.8 | 4.2 | 5.2 | 0.8 |
| Hickory | 19.7 | ... | 7.3 | 6.2 | 2.7 | 1.7 | ... | 1.3 | 0.5 |
| Hard maple | 1.1 | ... | 0.4 | 0.7 | ... | ... | ... | ... | ... |
| Soft maple | 5.9 | ... | 1.0 | 0.6 | 1.0 | ... | 3.3 | ... | ... |
| Tupelo-blackgum | 5.8 | ... | 1.0 | 2.0 | 1.8 | ... | 1.1 | ... | ... |
| Ash | 7.3 | ... | 1.4 | 1.9 | 2.2 | 1.0 | 0.7 | ... | ... |
| Cottonwood-aspen | 0.2 | ... | ... | ... | ... | ... | 0.2 | ... | ... |
| Black walnut | 1.9 | ... | 0.2 | 0.4 | 0.5 | 0.2 | 0.4 | 0.3 | ... |
| Other hardwoods | 20.5 | ... | 6.0 | 3.6 | 4.7 | ... | 1.9 | 3.2 | 1.0 |
| Total hardwoods | 200.5 | ... | 57.0 | 50.2 | 37.8 | 18.5 | 13.9 | 15.8 | 7.3 |
| All species | 229.5 | 8.6 | 67.6 | 56.2 | 41.3 | 18.9 | 13.9 | 15.8 | 7.3 |

[1] That part of the bole of sawtimber trees between the 1-foot stump and the saw-log top, including the portion of the forks large enough to contain a saw log.

Table 14 – *Volume of sawtimber on timberland by species and diameter class, Northeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|
| | *Million board feet* | | | | | | | | |
| Shortleaf-loblolly pine | 160.3 | 44.4 | 59.2 | 33.3 | 20.4 | 3.0 | ... | ... | ... |
| Total softwoods | 160.3 | 44.4 | 59.2 | 33.3 | 20.4 | 3.0 | ... | ... | ... |
| Select white oaks | 83.3 | ... | 29.8 | 20.6 | 15.9 | 7.5 | ... | 9.4 | ... |
| Select red oaks | 166.7 | ... | 35.6 | 21.4 | 22.9 | 26.8 | 9.6 | 20.2 | 30.2 |
| Other white oaks | 148.7 | ... | 51.7 | 46.8 | 31.7 | 8.6 | 3.9 | 5.8 | ... |
| Other red oaks | 409.3 | ... | 94.1 | 111.6 | 78.6 | 56.2 | 28.2 | 35.1 | 5.5 |
| Hickory | 114.8 | ... | 39.7 | 35.8 | 17.1 | 11.1 | ... | 8.9 | 2.2 |
| Hard maple | 6.3 | ... | 2.0 | 4.3 | ... | ... | ... | ... | ... |
| Soft maple | 34.9 | ... | 5.2 | 4.0 | 5.7 | ... | 20.0 | ... | ... |
| Tupelo-blackgum | 33.4 | ... | 5.1 | 11.2 | 9.8 | ... | 7.3 | ... | ... |
| Ash | 42.8 | ... | 7.8 | 11.4 | 13.6 | 6.3 | 3.7 | ... | ... |
| Cottonwood-aspen | 1.2 | ... | ... | ... | ... | ... | 1.2 | ... | ... |
| Black walnut | 12.7 | ... | 1.0 | 2.1 | 3.4 | 1.4 | 2.9 | 1.9 | ... |
| Other hardwoods | 120.9 | ... | 33.1 | 21.8 | 29.8 | ... | 12.4 | 19.9 | 3.8 |
| Total hardwoods | 1174.9 | ... | 305.1 | 291.0 | 228.6 | 118.0 | 89.2 | 101.3 | 41.7 |
| All species | 1335.2 | 44.4 | 364.3 | 324.4 | 249.0 | 121.0 | 89.2 | 101.3 | 41.7 |

Table 15 – *Volume of growing stock and sawtimber on timberland by county and species group, Northeast Oklahoma, 1986*

| County | Growing Stock: All species | Softwood: Pine: Planted | Softwood: Pine: Natural | Softwood: Other | Hardwood: Soft[1] | Hardwood: Hard[2] | Sawtimber: All species | Softwood: Pine: Planted | Softwood: Pine: Natural | Softwood: Other | Hardwood: Soft[1] | Hardwood: Hard[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | *Million board feet* | | | | | |
| Adair | 138.9 | ... | 14.7 | ... | 8.0 | 116.2 | 391.4 | ... | 64.0 | ... | 30.7 | 296.6 |
| Cherokee | 149.5 | ... | 12.4 | ... | 24.8 | 112.3 | 416.6 | ... | 46.1 | ... | 71.0 | 299.5 |
| Delaware[3] | 67.9 | ... | 2.8 | 0.3 | 2.8 | 62.0 | 169.0 | ... | 14.6 | ... | 6.5 | 147.9 |
| McIntosh | 26.7 | ... | ... | 0.2 | 6.2 | 20.3 | 75.1 | ... | ... | ... | 21.2 | 53.9 |
| Mayes | 37.9 | ... | 5.4 | ... | 8.5 | 24.0 | 118.0 | ... | 14.8 | ... | 34.3 | 69.0 |
| Muskogee | 41.7 | ... | 0.2 | ... | 9.1 | 32.5 | 61.8 | ... | 0.5 | ... | 14.7 | 46.5 |
| Sequoyah | 51.0 | ... | 5.5 | 0.7 | 4.3 | 40.6 | 103.3 | ... | 20.3 | ... | 9.0 | 74.0 |
| All counties | 513.6 | ... | 41.0 | 1.2 | 63.7 | 407.7 | 1335.2 | ... | 160.3 | ... | 187.5 | 987.4 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Ottawa included in Delaware.

**Table 16** – *Volume of timber on timberland by class of timber and species group, Northeast Oklahoma, 1986*

| Class of timber | All species | Softwood | | | Hardwood | |
|---|---|---|---|---|---|---|
| | | Pine | | | | |
| | | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | |
| Sawtimber trees: | | | | | | |
| Saw-log portion | 229.5 | ... | 29.0 | ... | 31.9 | 168.6 |
| Upper-stem portion | 38.8 | ... | 3.0 | ... | 5.9 | 29.9 |
| Total | 268.3 | ... | 32.1 | ... | 37.8 | 198.5 |
| Poletimber trees | 245.2 | ... | 8.9 | 1.2 | 25.9 | 209.2 |
| All growing-stock trees | 513.6 | ... | 41.0 | 1.2 | 63.7 | 407.7 |
| Rough trees: | | | | | | |
| Sawtimber size | 123.0 | ... | 0.6 | 0.4 | 15.6 | 106.4 |
| Poletimber size | 115.0 | ... | 1.7 | 0.4 | 15.2 | 97.8 |
| Total | 237.9 | ... | 2.3 | 0.7 | 30.7 | 204.2 |
| Rotten trees: | | | | | | |
| Sawtimber size | 68.5 | ... | 0.4 | ... | 5.2 | 62.8 |
| Poletimber size | 10.4 | ... | ... | ... | 0.9 | 9.4 |
| Total | 78.9 | ... | 0.4 | ... | 6.2 | 72.2 |
| Salvable dead trees: | | | | | | |
| Sawtimber size | 1.1 | ... | ... | ... | 0.4 | 0.7 |
| Poletimber size | 4.8 | ... | ... | ... | 0.7 | 4.1 |
| Total | 6.0 | ... | ... | ... | 1.1 | 4.8 |
| All classes | 836.3 | ... | 43.7 | 1.9 | 101.7 | 689.0 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 17 - *Volume of live trees and growing stock on timberland by ownership class and species group, Northeast Oklahoma, 1986*

| Ownership class | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Softwood | | | Hardwood | | | Softwood | | | Hardwood | |
| | | Pine | | | | | | Pine | | | | |
| | All species | Planted | Natural | Other | Soft[1] | Hard[2] | All species | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | | *Million board feet* | | | | | |
| Other public | 105.2 | ... | 6.4 | 0.2 | 20.5 | 78.1 | 66.7 | ... | 5.6 | 0.2 | 12.6 | 48.2 |
| Other private | 725.1 | ... | 37.3 | 1.7 | 80.1 | 606.1 | 446.9 | ... | 35.4 | 0.9 | 51.1 | 359.5 |
| All ownerships | 830.4 | ... | 43.7 | 1.9 | 100.6 | 684.2 | 513.6 | ... | 41.0 | 1.2 | 63.7 | 407.7 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 18 – *Average net annual growth of growing stock and sawtimber on timberland by county and species group, Northeast Oklahoma, 1986*

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Softwood | | | Hardwood | | | Softwood | | | Hardwood | |
| | | Pine | | | | | | Pine | | | | |
| | All species | Planted | Natural | Other | Soft[1] | Hard[2] | All species | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | | *Million board feet* | | | | | |
| Adair | 4.0 | ... | 0.2 | ... | 0.1 | 3.6 | 13.5 | ... | 1.4 | ... | 0.4 | 11.7 |
| Cherokee | 4.5 | ... | 0.4 | ... | 0.2 | 3.9 | 12.7 | ... | 1.6 | ... | 0.7 | 10.5 |
| Delaware[3] | 2.2 | ... | 0.1 | ... | ... | 2.1 | 8.3 | ... | 0.7 | ... | 0.1 | 7.4 |
| McIntosh | 1.9 | ... | ... | ... | 0.1 | 1.7 | 6.1 | ... | ... | ... | 0.5 | 5.6 |
| Mayes | 1.1 | ... | 0.3 | ... | 0.3 | 0.5 | 4.6 | ... | 1.6 | ... | 1.0 | 2.0 |
| Muskogee | 2.4 | ... | ... | ... | 0.3 | 2.1 | 4.3 | ... | ... | ... | -0.1 | 4.4 |
| Sequoyah | 3.7 | ... | 0.7 | 0.1 | 0.5 | 2.4 | 8.2 | ... | 2.0 | ... | 1.6 | 4.6 |
| All counties | 19.8 | ... | 1.7 | 0.2 | 1.6 | 16.4 | 57.8 | ... | 7.3 | ... | 4.2 | 46.2 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Ottawa included in Delaware.

Table 19 – *Average annual removals of growing stock and sawtimber on timberland by county and species group, Northeast Oklahoma, 1986*

| County | Growing stock | | | | | | Sawtimber | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | | | | | Pine | | | | |
| | | Planted | Natural | Other | Soft[1] | Hard[2] | | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | | *Million board feet* | | | | | |
| Adair | 0.3 | ... | ... | ... | ... | 0.3 | 0.8 | ... | ... | ... | ... | 0.8 |
| Cherokee | 1.2 | ... | ... | ... | ... | 1.1 | 2.4 | ... | ... | ... | 0.3 | 2.1 |
| Delaware[3] | 1.4 | ... | ... | ... | ... | 1.3 | 3.4 | ... | 0.2 | ... | 0.2 | 3.0 |
| McIntosh | 0.4 | ... | ... | ... | ... | 0.4 | 1.1 | ... | ... | ... | ... | 1.1 |
| Mayes | 0.1 | ... | 0.1 | ... | ... | ... | 0.4 | ... | 0.4 | ... | ... | ... |
| Muskogee | 0.3 | ... | ... | ... | ... | 0.2 | 0.4 | ... | ... | ... | ... | 0.4 |
| Sequoyah | 4.9 | ... | 3.3 | ... | 1.1 | 0.5 | 17.0 | ... | 13.3 | ... | 2.5 | 1.3 |
| All counties | 8.5 | ... | 3.4 | ... | 1.2 | 3.8 | 25.6 | ... | 13.9 | ... | 3.0 | 8.7 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

[3] Ottawa included in Delaware.

Table 20 – *Average net annual growth and average annual removals of growing stock on timberland, Northeast Oklahoma, 1986*

| Species | Growth | Removals |
|---|---|---|
| | *Million cubic feet* | |
| Yellow pines | 1.7 | 3.4 |
| Other softwoods | 0.2 | ... |
| Total softwoods | 1.9 | 3.4 |
| Select white-red oaks | 3.4 | 0.2 |
| Other white-red oaks | 10.5 | 3.0 |
| Hickory | 1.9 | 0.5 |
| Hard maple | 0.1 | ... |
| Ash-walnut-black cherry | 0.4 | ... |
| Other hardwoods | 1.6 | 1.3 |
| Total hardwoods | 17.9 | 5.0 |
| All species | 19.8 | 8.5 |

Table 21 – *Average net annual growth and average annual removals of sawtimber on timberland, Northeast Oklahoma, 1986*

| Species | Growth | Removals |
|---|---|---|
| | *Million board feet* | |
| Yellow pines | 7.3 | 13.9 |
| Total softwoods | 7.3 | 13.9 |
| Select white-red oaks | 12.5 | 0.1 |
| Other white-red oaks | 26.6 | 7.1 |
| Hickory | 3.8 | 1.2 |
| Hard maple | 0.5 | ... |
| Ash-walnut-black cherry | 2.6 | ... |
| Other hardwoods | 4.4 | 3.3 |
| Total hardwoods | 50.4 | 11.7 |
| All species | 57.8 | 25.6 |

Table 22 – *Average annual mortality of growing stock and sawtimber on timberland by species, Northeast Oklahoma, 1986*

| Species | Growing stock | Sawtimber |
|---|---|---|
| | *Million cubic feet* | *Million board feet* |
| Yellow pines | 0.1 | ... |
| Total softwoods | 0.1 | ... |
| Select white-red oaks | 0.2 | 0.7 |
| Other white-red oaks | 1.2 | 1.4 |
| Hickory | 0.6 | 1.8 |
| Ash-walnut-black cherry | 0.2 | ... |
| Other hardwoods | 1.1 | 4.2 |
| Total hardwoods | 3.3 | 8.2 |
| All species | 3.4 | 8.2 |

Table 23 – *Average net annual growth and average annual removals of growing stock on timberland by ownership class and species group, Northeast Oklahoma, 1986*

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Softwood | | | Hardwood | | All species | Softwood | | | Hardwood | |
| | | Pine | | | | | | Pine | | | | |
| | | Planted | Natural | Other | Soft[1] | Hard[2] | | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million cubic feet* | | | | | | | | | | | |
| Other public | 3.2 | ... | 0.3 | ... | 0.3 | 2.5 | 1.2 | ... | 0.1 | ... | 1.0 | 0.1 |
| Other private | 16.6 | ... | 1.4 | 0.2 | 1.2 | 13.8 | 7.3 | ... | 3.4 | ... | 0.3 | 3.7 |
| All ownerships | 19.8 | ... | 1.7 | 0.2 | 1.6 | 16.4 | 8.5 | ... | 3.4 | ... | 1.2 | 3.8 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 24 – *Average net annual growth and average annual removals of sawtimber on timberland by ownership class and species group, Northeast Oklahoma, 1986*

| Ownership class | Growth | | | | | | Removals | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Softwood | | | Hardwood | | | Softwood | | | Hardwood | |
| | | Pine | | | | | | Pine | | | | |
| | All species | Planted | Natural | Other | Soft[1] | Hard[2] | All species | Planted | Natural | Other | Soft[1] | Hard[2] |
| | *Million board feet* | | | | | | | | | | | |
| Other public | 7.4 | ... | 1.6 | ... | -0.3 | 6.0 | 2.5 | ... | 0.4 | ... | 1.8 | 0.3 |
| Other private | 50.4 | ... | 5.7 | ... | 4.5 | 40.2 | 23.0 | ... | 13.5 | ... | 1.2 | 8.4 |
| All ownerships | 57.8 | ... | 7.3 | ... | 4.2 | 46.2 | 25.6 | ... | 13.9 | ... | 3.0 | 8.7 |

[1] Hardwood species with an average specific gravity of 0.50 or less such as gums, yellow-poplar, cottonwood, red maple, basswood, aspen, and willow.

[2] Hardwood species with an average specific gravity greater than 0.50 such as oaks, hard maple, hickories, and green and white ash.

Table 25 – *Volume of sawtimber on timberland by species and tree grade, Northeast Oklahoma, 1986*

| Species | All grades | Grade 1 | Grade 2 | Grade 3 | Grade 4 |
|---|---|---|---|---|---|
| | *Million board feet* | | | | |
| Yellow pines | 160.3 | 9.4 | 54.7 | 96.2 | ... |
| Total softwoods | 160.3 | 9.4 | 54.7 | 96.2 | ... |
| Select white-red oaks | 250.0 | 32.5 | 41.9 | 73.6 | 102.0 |
| Other white-red oaks | 558.0 | 3.9 | 63.6 | 283.7 | 206.8 |
| Hickory | 114.8 | ... | 12.4 | 48.0 | 54.3 |
| Hard maple | 6.3 | ... | ... | ... | 6.3 |
| Tupelo and blackgum | 33.4 | 3.3 | 11.1 | 13.9 | 5.1 |
| Ash-walnut-black cherry | 55.4 | 18.7 | 18.1 | 14.7 | 3.9 |
| Other hardwoods | 157.0 | 22.7 | 29.1 | 77.6 | 27.6 |
| Total hardwoods | 1174.9 | 81.1 | 176.2 | 511.5 | 406.1 |
| All species | 1335.2 | 90.5 | 230.9 | 607.7 | 406.1 |

**Table 26** – *Area of timberland by stand age, forest type group, and type of regeneration, Northeast Oklahoma, 1986*

| Stand age class | Pine | | Oak-pine | | Other hardwood types | |
|---|---|---|---|---|---|---|
| | Artificial | Natural | Artificial | Natural | Artificial | Natural |
| | *Thousand acres* | | | | | |
| 1-10 | ... | ... | ... | ... | ... | 42.9 |
| 11-20 | ... | ... | ... | ... | ... | 25.9 |
| 21-30 | ... | ... | ... | ... | ... | ... |
| 31-40 | ... | ... | ... | ... | ... | 19.1 |
| 41-50 | ... | ... | ... | ... | ... | 63.5 |
| >50 | ... | ... | ... | ... | ... | 32.2 |
| Mixed | ... | 25.8 | ... | 38.1 | ... | 1018.8 |
| All classes | ... | 25.8 | ... | 38.1 | ... | 1202.4 |

**Table 27** – *Volume of softwood growing stock on timberland by forest type, Northeast Oklahoma, 1986*

| County | Total | Forest type group | | | |
|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory |
| | | Planted | Natural | | |
| | *Million cubic feet* | | | | |
| Adair | 14.7 | ... | 9.3 | 3.6 | 1.8 |
| Cherokee | 12.4 | ... | 7.6 | 2.3 | 2.5 |
| Delaware[1] | 3.1 | ... | ... | ... | 3.1 |
| McIntosh | 0.2 | ... | ... | ... | 0.2 |
| Mayes | 5.4 | ... | 5.4 | ... | ... |
| Muskogee | 0.2 | ... | ... | ... | 0.2 |
| Sequoyah | 6.1 | ... | ... | 5.5 | 0.7 |
| All counties | 42.2 | ... | 22.3 | 11.3 | 8.5 |

[1] Ottawa included in Delaware.

**Table 28** – *Volume of hardwood growing stock on timberland by forest type, Northeast Oklahoma, 1986*

| County | Total | Forest type group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum-cypress | Elm-ash-cottonwood |
| | | Planted | Natural | | | | |
| | *Million cubic feet* | | | | | | |
| Adair | 124.2 | ... | 2.5 | 2.6 | 119.0 | ... | ... |
| Cherokee | 137.1 | ... | ... | 2.9 | 109.4 | 13.7 | 11.0 |
| Delaware[1] | 64.8 | ... | ... | 0.3 | 63.2 | 1.3 | ... |
| McIntosh | 26.5 | ... | ... | ... | 22.8 | 1.9 | 1.8 |
| Mayes | 32.5 | ... | 0.7 | ... | 22.1 | 9.7 | ... |
| Muskogee | 41.5 | ... | ... | ... | 33.5 | 8.1 | ... |
| Sequoyah | 44.9 | ... | ... | 3.4 | 39.7 | 1.1 | 0.7 |
| All counties | 471.4 | ... | 3.2 | 9.3 | 409.7 | 35.8 | 13.4 |

[1] Ottawa included in Delaware.

**Table 29** – *Volume of softwood growing stock in the saw-log portion of sawtimber trees on timberland by forest type, Northeast Oklahoma, 1986*

| County | Total | Forest type group | | | |
|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory |
| | | Planted | Natural | | |
| | *Million cubic feet* | | | | |
| Adair | 11.9 | ... | 7.4 | 3.2 | 1.3 |
| Cherokee | 8.4 | ... | 5.2 | 1.0 | 2.2 |
| Delaware[1] | 2.4 | ... | ... | ... | 2.4 |
| McIntosh | ... | ... | ... | ... | ... |
| Mayes | 2.6 | ... | 2.6 | ... | ... |
| Muskogee | 0.1 | ... | ... | ... | 0.1 |
| Sequoyah | 3.7 | ... | ... | 3.7 | ... |
| All counties | 29.0 | ... | 15.2 | 7.9 | 6.0 |

[1] Ottawa included in Delaware.

Table 30 – *Volume of hardwood growing stock in the saw log portion of sawtimber trees on timberland by forest type, Northeast Oklahoma, 1986*

| County | Total | Forest type group | | | | | |
|---|---|---|---|---|---|---|---|
| | | Loblolly-shortleaf pine | | Oak-pine | Oak-hickory | Oak-gum-cypress | Elm-ash-cottonwood |
| | | Planted | Natural | | | | |
| | *Million cubic feet* | | | | | | |
| Adair | 57.6 | ... | 1.1 | 1.9 | 54.7 | ... | ... |
| Cherokee | 64.5 | ... | ... | 1.3 | 46.1 | 10.5 | 6.7 |
| Delaware[1] | 24.9 | ... | ... | ... | 24.3 | 0.6 | ... |
| McIntosh | 12.2 | ... | ... | ... | 10.7 | 0.4 | 1.2 |
| Mayes | 16.7 | ... | ... | ... | 10.9 | 5.8 | ... |
| Muskogee | 10.3 | ... | ... | ... | 6.5 | 3.8 | ... |
| Sequoyah | 14.2 | ... | ... | 0.9 | 12.8 | 0.2 | 0.2 |
| All counties | 200.5 | ... | 1.1 | 4.0 | 166.1 | 21.3 | 8.0 |

[1] Ottawa included in Delaware.

Table 31 – *Volume of timber on timberland by county, class of timber,and species group, Northeast Oklahoma, 1986*

| County | All classes | Growing stock | | Rough | | Rotten | |
|---|---|---|---|---|---|---|---|
| | | Softwood | Hardwood | Softwood | Hardwood | Softwood | Hardwood |
| | *Million cubic feet* | | | | | | |
| Adair | 195.2 | 14.7 | 124.2 | 1.1 | 45.2 | ... | 10.0 |
| Cherokee | 207.8 | 12.4 | 137.1 | ... | 46.6 | ... | 11.7 |
| Delaware[1] | 143.0 | 3.1 | 64.8 | 0.4 | 47.3 | 0.4 | 27.0 |
| McIntosh | 46.4 | 0.2 | 26.5 | 0.2 | 18.1 | ... | 1.5 |
| Mayes | 81.7 | 5.4 | 32.5 | 0.7 | 21.0 | ... | 22.0 |
| Muskogee | 70.6 | 0.2 | 41.5 | ... | 26.6 | ... | 2.3 |
| Sequoyah | 85.8 | 6.1 | 44.9 | 0.6 | 30.3 | ... | 3.9 |
| All counties | 830.4 | 42.2 | 471.4 | 3.0 | 234.9 | 0.4 | 78.4 |

[1] Ottawa included in Delaware.

Table 32 – *Number of live trees on timberland by detailed species and diameter class, Northeast Oklahoma, 1986*

| Species | All classes | Diameter class (inches at breast height) 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Thousand trees* | | | | | | | | | | | | |
| Shortleaf pine | 24450 | 14492 | 4699 | 1524 | 1406 | 1015 | 523 | 320 | 143 | 29 | ... | ... | ... |
| Loblolly pine | 42 | ... | ... | ... | ... | 42 | ... | ... | ... | ... | ... | ... | ... |
| Redcedar | 5763 | 3852 | 1188 | 428 | 257 | 38 | ... | ... | ... | ... | ... | ... | ... |
| Total softwoods | 30254 | 18344 | 5886 | 1951 | 1663 | 1094 | 823 | 320 | 143 | 29 | ... | ... | ... |
| Select white oaks | 36815 | 19261 | 9297 | 3268 | 1739 | 1437 | 854 | 368 | 245 | 123 | 92 | 131 | ... |
| Select red oaks | 13253 | 7105 | 583 | 1093 | 1321 | 1208 | 890 | 341 | 228 | 244 | 88 | 104 | 49 |
| Other white oaks | 110177 | 49135 | 30397 | 12523 | 8794 | 3968 | 2230 | 1335 | 884 | 353 | 252 | 306 | ... |
| Other red oaks | 86345 | 40909 | 16871 | 7229 | 7122 | 5385 | 3116 | 2489 | 1479 | 833 | 349 | 535 | 27 |
| Sweet pecan | 3982 | 3403 | ... | 273 | 128 | 54 | 60 | ... | ... | 13 | 21 | 23 | 7 |
| Other hickories | 96730 | 65524 | 15643 | 7575 | 3460 | 2119 | 1208 | 705 | 283 | 149 | 23 | 40 | ... |
| Persimmon | 10305 | 8699 | 1159 | 446 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Hard maple | 3053 | 2460 | ... | 185 | 165 | 81 | 27 | 108 | 18 | ... | ... | 8 | ... |
| Soft maple | 7863 | 6356 | 571 | 412 | 87 | 120 | 94 | 73 | 39 | 15 | 59 | 18 | 19 |
| Boxelder | 1288 | ... | 1061 | ... | 68 | 42 | 32 | 42 | 35 | ... | 9 | ... | ... |
| Blackgum | 7012 | 4760 | 1209 | 415 | 218 | 85 | 90 | 137 | 69 | ... | 23 | 6 | ... |
| White ash | 4484 | 2713 | ... | 915 | 369 | 140 | 160 | 80 | 33 | 39 | 10 | 25 | ... |
| Other ashes | 7174 | 4433 | 583 | 902 | 371 | 424 | 233 | 84 | 108 | 13 | 11 | 7 | 4 |
| Sycamore | 1081 | ... | ... | 354 | 356 | 88 | 115 | 25 | 53 | 12 | 24 | 47 | 8 |
| Cottonwood | 8235 | 7383 | 568 | 267 | ... | ... | ... | ... | ... | ... | 11 | 6 | ... |
| Willow | 4082 | 3976 | ... | ... | ... | ... | ... | 40 | 50 | ... | 10 | 7 | ... |
| Black walnut | 7495 | 4202 | 2416 | 235 | 125 | 243 | 83 | 110 | 15 | 14 | 40 | 7 | 4 |
| Black cherry | 3606 | 3001 | 591 | ... | ... | ... | ... | ... | 14 | ... | ... | ... | ... |
| American elm | 8805 | 4986 | 2236 | 864 | 274 | 220 | 96 | 70 | 15 | 14 | 21 | 9 | ... |
| Other elms | 71477 | 53290 | 11489 | 4219 | 842 | 1022 | 267 | 209 | 82 | ... | 43 | 15 | ... |
| River birch | 654 | 568 | ... | ... | ... | ... | 28 | ... | 18 | 14 | 12 | 9 | 5 |
| Hackberry | 18459 | 12346 | 2721 | 1579 | 717 | 464 | 319 | 179 | 77 | 27 | 11 | 17 | 3 |
| Black locust | 5936 | 3625 | 1825 | 329 | 156 | ... | ... | ... | ... | ... | ... | ... | ... |
| Other locusts | 2305 | 1175 | ... | 139 | 653 | 171 | 140 | ... | 19 | ... | ... | 8 | ... |
| Sassafras | 34026 | 32848 | 591 | 382 | 70 | 98 | 36 | ... | ... | ... | ... | ... | ... |
| Dogwood | 23109 | 18199 | 4147 | 682 | 81 | ... | ... | ... | ... | ... | ... | ... | ... |
| Other commercial | 4859 | 1041 | 1864 | 1506 | 305 | 57 | 52 | 16 | ... | 11 | ... | ... | 8 |
| Total hardwoods | 582610 | 361396 | 105824 | 45795 | 27421 | 17425 | 10130 | 6410 | 3763 | 1875 | 1108 | 1328 | 135 |
| Noncommercial | 82861 | 48151 | 18651 | 6321 | 4400 | 3031 | 900 | 693 | 366 | 250 | 88 | 10 | ... |
| All species | 695725 | 427891 | 130361 | 54067 | 33485 | 21551 | 11853 | 7423 | 4272 | 2154 | 1196 | 1338 | 135 |

Table 33 – *Number of growing-stock trees on timberland by detailed species and diameter class, Northeast Oklahoma, 1986*

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | *Thousand trees* | | | | | | | | | | |
| Shortleaf pine | 4446 | 1080 | 1137 | 960 | 791 | 320 | 143 | 15 | ... | ... | ... |
| Loblolly pine | 42 | ... | ... | 42 | ... | ... | ... | ... | ... | ... | ... |
| Redcedar | 479 | 314 | 165 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total softwoods | 4966 | 1394 | 1302 | 1002 | 791 | 320 | 143 | 15 | ... | ... | ... |
| Select white oaks | 5491 | 2231 | 1383 | 923 | 531 | 211 | 125 | 52 | ... | 35 | ... |
| Select red oaks | 4063 | 879 | 1116 | 947 | 515 | 204 | 158 | 122 | 33 | 55 | 34 |
| Other white oaks | 20989 | 9562 | 6683 | 2630 | 1125 | 580 | 292 | 71 | 22 | 24 | ... |
| Other red oaks | 18833 | 5229 | 5599 | 3680 | 1752 | 1304 | 653 | 347 | 137 | 122 | 10 |
| Sweet pecan | 294 | 132 | 60 | 54 | 31 | ... | ... | ... | ... | 15 | 3 |
| Other hickories | 9876 | 5282 | 2142 | 1198 | 684 | 363 | 143 | 57 | ... | 6 | ... |
| Persimmon | 289 | 289 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Hard maple | 72 | ... | ... | ... | 27 | 45 | ... | ... | ... | ... | ... |
| Soft maple | 298 | ... | ... | 81 | 94 | 25 | 39 | ... | 59 | ... | ... |
| Boxelder | 110 | ... | 68 | 42 | ... | ... | ... | ... | ... | ... | ... |
| Blackgum | 664 | 251 | 72 | 44 | 90 | 116 | 69 | ... | 23 | ... | ... |
| White ash | 700 | 368 | 140 | 90 | 23 | 58 | ... | 12 | 10 | ... | ... |
| Other ashes | 794 | 187 | 196 | 121 | 113 | 62 | 90 | 13 | 11 | ... | ... |
| Sycamore | 874 | 231 | 356 | 39 | 115 | 25 | 53 | ... | 24 | 27 | 5 |
| Cottonwood | 278 | 267 | ... | ... | ... | ... | ... | ... | 11 | ... | ... |
| Willow | 90 | ... | ... | ... | ... | 40 | 50 | ... | ... | ... | ... |
| Black walnut | 215 | ... | 73 | 37 | 33 | 25 | 15 | 14 | 11 | 7 | ... |
| American elm | 773 | 397 | 61 | 180 | 66 | 49 | ... | ... | 21 | ... | ... |
| Other elms | 2683 | 1506 | 425 | 532 | 147 | 37 | 18 | ... | 9 | 9 | ... |
| Hackberry | 1518 | 504 | 374 | 334 | 178 | 81 | 48 | ... | ... | ... | ... |
| Black locust | 102 | 102 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other locusts | 204 | ... | 127 | 33 | 25 | ... | 19 | ... | ... | ... | ... |
| Sassafras | 416 | 292 | 70 | 54 | ... | ... | ... | ... | ... | ... | ... |
| Other commercial | 241 | 196 | 44 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total hardwoods | 69867 | 27904 | 18989 | 11017 | 5549 | 3224 | 1772 | 688 | 370 | 301 | 52 |
| All species | 74833 | 29298 | 20291 | 12019 | 6340 | 3544 | 1914 | 703 | 370 | 301 | 52 |

**Table 34** – *Volume of growing-stock trees on timberland by species and diameter class, Northeast Oklahoma, 1986*

| Species | Diameter class (inches at breast height) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All classes | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
| | *Million cubic feet* | | | | | | | | | | |
| Shortleaf pine | 40.8 | 3.1 | 5.8 | 10.0 | 11.5 | 6.4 | 3.6 | 0.4 | ... | ... | ... |
| Loblolly pine | 0.2 | ... | ... | 0.2 | ... | ... | ... | ... | ... | ... | ... |
| Redcedar | 1.2 | 0.4 | 0.7 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total softwoods | 42.2 | 3.6 | 6.5 | 10.2 | 11.5 | 6.4 | 3.6 | 0.4 | ... | ... | ... |
| Select white oaks | 38.5 | 5.6 | 7.0 | 8.1 | 7.2 | 4.3 | 2.9 | 1.5 | ... | 1.9 | ... |
| Select red oaks | 49.8 | 1.7 | 5.8 | 9.6 | 8.0 | 4.3 | 4.5 | 4.7 | 1.8 | 3.9 | 5.5 |
| Other white oaks | 96.1 | 19.5 | 27.6 | 19.2 | 11.6 | 9.3 | 5.7 | 1.6 | 0.6 | 1.0 | ... |
| Other red oaks | 147.6 | 10.9 | 25.8 | 29.4 | 22.3 | 22.4 | 15.2 | 10.0 | 4.8 | 5.8 | 0.9 |
| Sweet pecan | 3.2 | 0.5 | 0.4 | 0.4 | 0.4 | ... | ... | ... | ... | 1.0 | 0.5 |
| Other hickories | 50.8 | 9.8 | 10.1 | 9.2 | 9.0 | 7.2 | 3.1 | 1.9 | ... | 0.5 | ... |
| Persimmon | 0.6 | 0.6 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Hard maple | 1.1 | ... | ... | ... | 0.4 | 0.7 | ... | ... | ... | ... | ... |
| Soft maple | 7.7 | ... | ... | 0.8 | 1.5 | 0.7 | 1.2 | ... | 3.5 | ... | ... |
| Boxelder | 0.9 | ... | 0.3 | 0.6 | ... | ... | ... | ... | ... | ... | ... |
| Blackgum | 7.6 | 0.6 | 0.3 | 0.3 | 1.1 | 2.2 | 1.9 | ... | 1.1 | ... | ... |
| White ash | 4.6 | 1.6 | 0.5 | 0.5 | 0.2 | 1.0 | ... | 0.5 | 0.4 | ... | ... |
| Other ashes | 9.4 | 0.5 | 0.9 | 1.4 | 1.5 | 1.4 | 2.7 | 0.6 | 0.4 | ... | ... |
| Sycamore | 13.9 | 0.8 | 2.6 | 0.5 | 2.7 | 0.7 | 1.8 | ... | 1.1 | 2.7 | 1.1 |
| Cottonwood | 0.7 | 0.4 | ... | ... | ... | ... | ... | ... | 0.3 | ... | .. |
| Willow | 2.5 | ... | ... | ... | ... | 1.0 | 1.5 | ... | ... | ... | ... |
| Black walnut | 3.1 | ... | 0.3 | 0.3 | 0.4 | 0.5 | 0.6 | 0.2 | 0.5 | 0.4 | ... |
| American elm | 4.9 | 0.7 | 0.3 | 1.2 | 0.9 | 0.8 | ... | ... | 1.0 | ... | ... |
| Other elms | 13.7 | 3.1 | 2.3 | 4.8 | 1.9 | 0.6 | 0.3 | ... | 0.2 | 0.5 | ... |
| Hackberry | 10.6 | 1.2 | 1.2 | 2.8 | 2.3 | 1.6 | 1.5 | ... | ... | ... | ... |
| Black locust | 0.3 | 0.3 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other locusts | 1.6 | ... | 0.5 | 0.2 | 0.3 | ... | 0.5 | ... | ... | ... | ... |
| Sassafras | 1.2 | 0.6 | 0.4 | 0.3 | ... | ... | ... | ... | ... | ... | ... |
| Other commercial | 1.0 | 0.7 | 0.3 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total hardwoods | 471.4 | 59.0 | 86.6 | 89.5 | 71.6 | 58.9 | 43.4 | 20.9 | 15.7 | 17.7 | 8.0 |
| All species | 513.6 | 62.6 | 93.1 | 99.7 | 83.1 | 65.2 | 47.1 | 21.4 | 15.7 | 17.7 | 8.0 |

Table 35 – *Volume of growing stock in the saw log portion of sawtimber trees on timberland by detailed species and diameter class, Northeast Oklahoma, 1986*

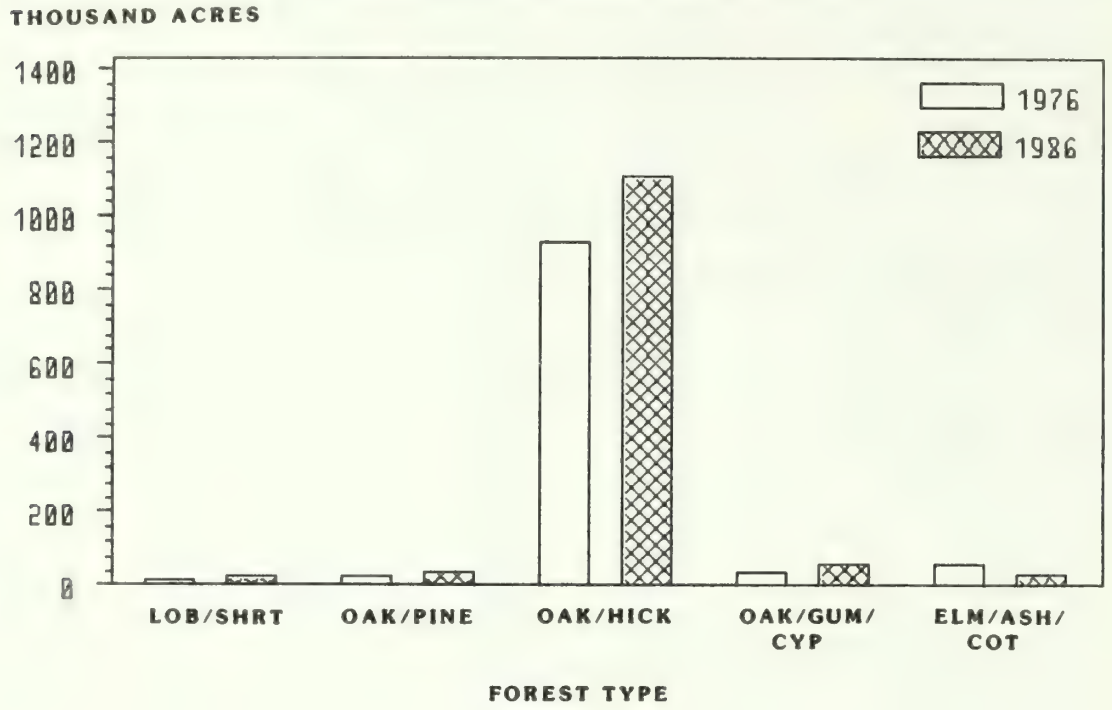
| Species | All classes | Diameter class (inches at breast height) 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-28.9 | 29.0 & larger |
|---|---|---|---|---|---|---|---|---|---|
| | *Million cubic feet* | | | | | | | | |
| Shortleaf pine | 28.9 | 8.4 | 10.6 | 6.0 | 3.5 | 0.4 | ... | ... | ... |
| Loblolly pine | 0.1 | 0.1 | ... | ... | ... | ... | ... | ... | ... |
| Total softwoods | 29.0 | 8.6 | 10.6 | 6.0 | 3.5 | 0.4 | ... | ... | ... |
| Select white oaks | 14.5 | ... | 5.6 | 3.5 | 2.6 | 1.2 | ... | 1.5 | ... |
| Select red oaks | 28.2 | ... | 6.5 | 3.7 | 4.0 | 4.2 | 1.5 | 3.4 | 5.0 |
| Other white oaks | 26.2 | ... | 10.0 | 8.1 | 5.2 | 1.4 | 0.6 | 0.9 | ... |
| Other red oaks | 69.2 | ... | 17.7 | 19.4 | 13.2 | 8.8 | 4.2 | 5.2 | 0.8 |
| Sweet pecan | 1.5 | ... | 0.3 | ... | ... | ... | ... | 0.7 | 0.5 |
| Other hickories | 18.2 | ... | 7.1 | 6.2 | 2.7 | 1.7 | ... | 0.5 | ... |
| Hard maple | 1.1 | ... | 0.4 | 0.7 | ... | ... | ... | ... | ... |
| Soft maple | 5.9 | ... | 1.0 | 0.6 | 1.0 | ... | 3.3 | ... | ... |
| Blackgum | 5.8 | ... | 1.0 | 2.0 | 1.8 | ... | 1.1 | ... | ... |
| White ash | 1.7 | ... | 0.2 | 0.9 | ... | 0.4 | 0.3 | ... | ... |
| Other ashes | 5.5 | ... | 1.3 | 1.1 | 2.2 | 0.6 | 0.4 | ... | ... |
| Sycamore | 8.9 | ... | 2.0 | 0.6 | 1.6 | ... | 1.0 | 2.7 | 1.0 |
| Cottonwood | 0.2 | ... | ... | ... | ... | ... | 0.2 | ... | ... |
| Willow | 1.9 | ... | ... | 0.6 | 1.3 | ... | ... | ... | ... |
| Black walnut | 1.9 | ... | 0.2 | 0.4 | 0.5 | 0.2 | 0.4 | 0.3 | ... |
| American elm | 1.8 | ... | 0.6 | 0.5 | ... | ... | 0.7 | ... | ... |
| Other elms | 3.2 | ... | 1.6 | 0.6 | 0.3 | ... | 0.2 | 0.5 | ... |
| Hackberry | 4.2 | ... | 1.7 | 1.3 | 1.2 | ... | ... | ... | ... |
| Other locusts | 0.5 | ... | 0.2 | ... | 0.3 | ... | ... | ... | ... |
| Total hardwoods | 200.5 | ... | 57.0 | 50.2 | 37.8 | 18.5 | 13.9 | 15.8 | 7.3 |
| All species | 229.5 | 8.6 | 67.6 | 56.2 | 41.3 | 18.9 | 13.9 | 15.8 | 7.3 |

**Table 36** – *Volume of timber on timberland by species and class of timber, Northeast Oklahoma, 1986*

| Species | All live | Growing stock | Rough | Rotten |
|---|---|---|---|---|
| | | *Million cubic feet* | | |
| Shortleaf pine | 43.5 | 40.8 | 2.3 | 0.4 |
| Loblolly pine | 0.2 | 0.2 | ... | ... |
| Redcedar | 1.9 | 1.2 | 0.7 | ... |
| Total softwoods | 45.6 | 42.2 | 3.0 | 0.4 |
| Select white oaks | 56.6 | 38.5 | 13.9 | 4.2 |
| Select red oaks | 63.6 | 49.8 | 8.1 | 5.7 |
| Other white oaks | 143.7 | 96.1 | 30.6 | 17.0 |
| Other red oaks | 224.1 | 147.6 | 41.4 | 35.1 |
| Sweet pecan | 5.1 | 3.2 | 1.3 | 0.6 |
| Other hickories | 77.4 | 50.8 | 20.8 | 5.8 |
| Persimmon | 0.7 | 0.6 | 0.1 | ... |
| Hard maple | 3.7 | 1.1 | 1.9 | 0.8 |
| Soft maple | 13.6 | 7.7 | 5.5 | 0.4 |
| Boxelder | 2.6 | 0.9 | 1.0 | 0.7 |
| Blackgum | 9.1 | 7.6 | 0.4 | 1.1 |
| White ash | 9.9 | 4.6 | 4.4 | 0.8 |
| Other ashes | 14.9 | 9.4 | 5.0 | 0.5 |
| Sycamore | 16.1 | 13.9 | 1.3 | 0.9 |
| Cottonwood | 0.8 | 0.7 | ... | 0.2 |
| Willow | 3.4 | 2.5 | 0.8 | ... |
| Black walnut | 6.6 | 3.1 | 2.9 | 0.6 |
| Black cherry | 0.1 | ... | ... | 0.1 |
| American elm | 7.9 | 4.9 | 3.0 | ... |
| Other elms | 25.8 | 13.7 | 11.5 | 0.6 |
| River birch | 1.3 | ... | 0.6 | 0.7 |
| Hackberry | 18.2 | 10.6 | 6.1 | 1.5 |
| Black locust | 0.9 | 0.3 | 0.2 | 0.4 |
| Other locusts | 5.4 | 1.6 | 3.8 | ... |
| Sassafras | 2.2 | 1.2 | 0.5 | 0.4 |
| Dogwood | 0.7 | ... | 0.7 | ... |
| Other commercial | 4.9 | 1.0 | 3.5 | 0.4 |
| Total hardwoods | 719.2 | 471.4 | 169.3 | 78.4 |
| Noncommercial | 65.6 | ... | 65.6 | ... |
| All species | 830.4 | 513.6 | 237.9 | 78.9 |

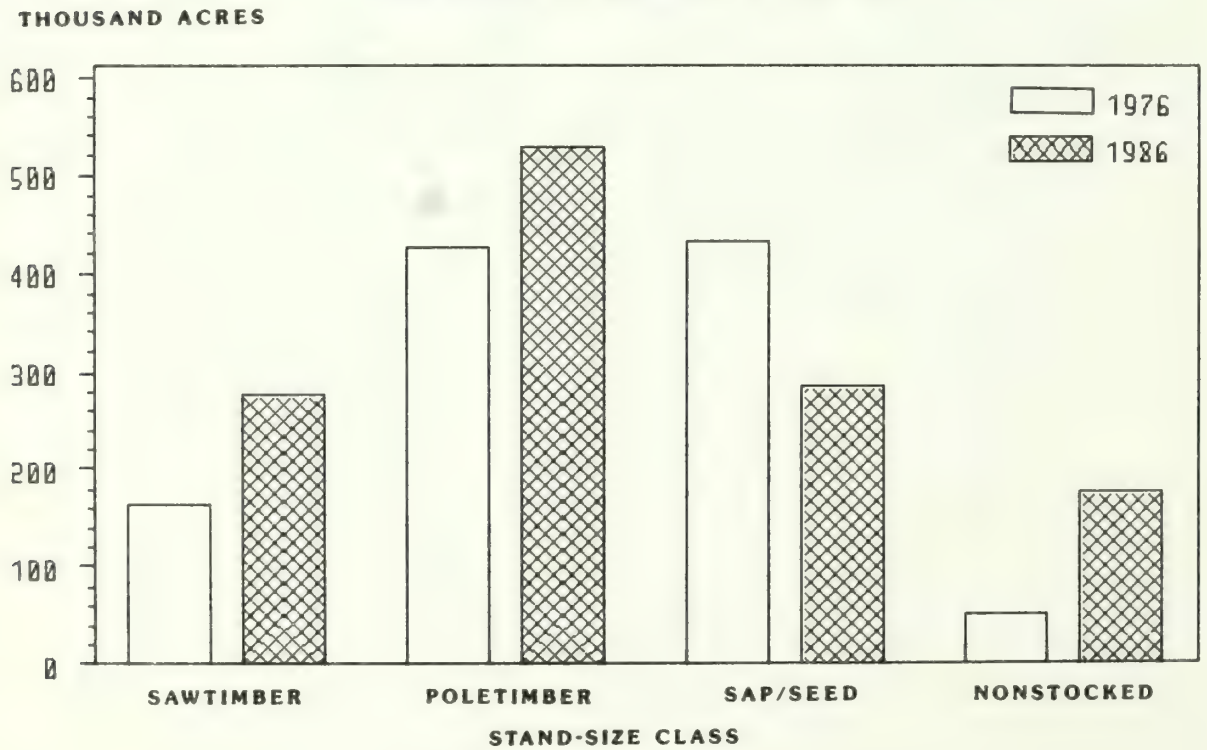
## AREA OF TIMBERLAND BY FOREST TYPE

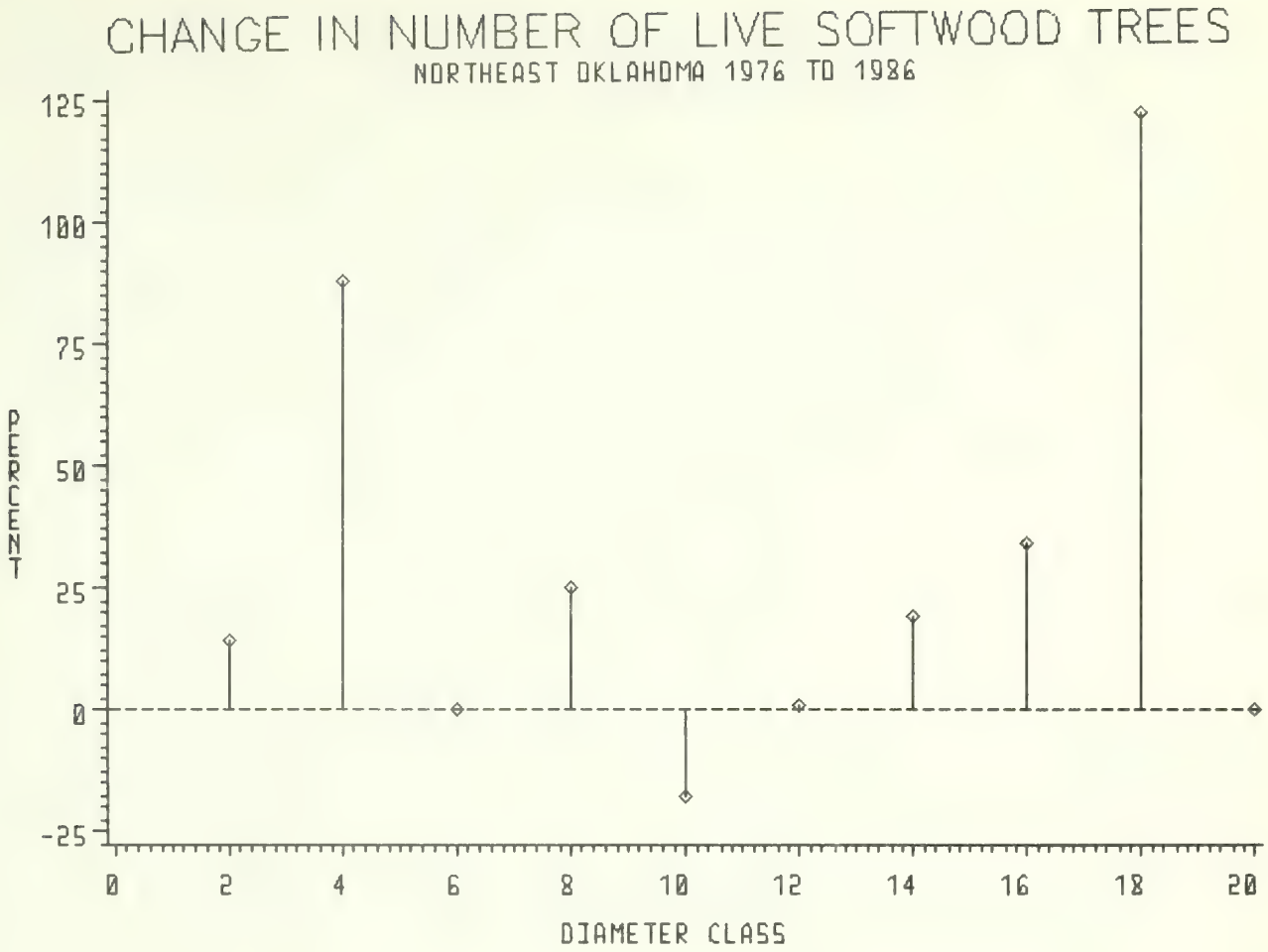
NORTHEAST OKLAHOMA 1976 AND 1986

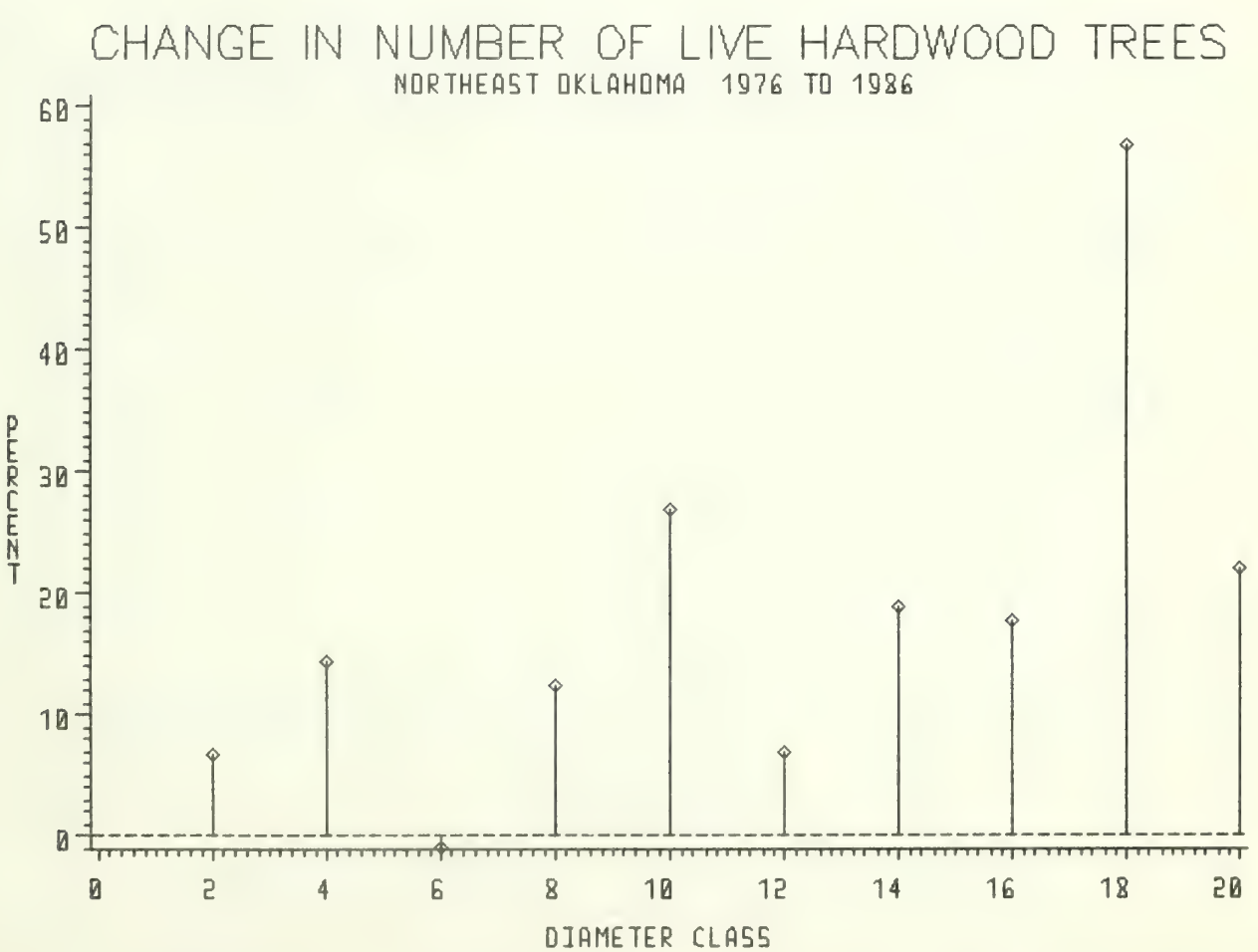



## AREA OF TIMBERLAND BY STAND-SIZE CLASS

NORTHEAST OKLAHOMA 1976 AND 1986

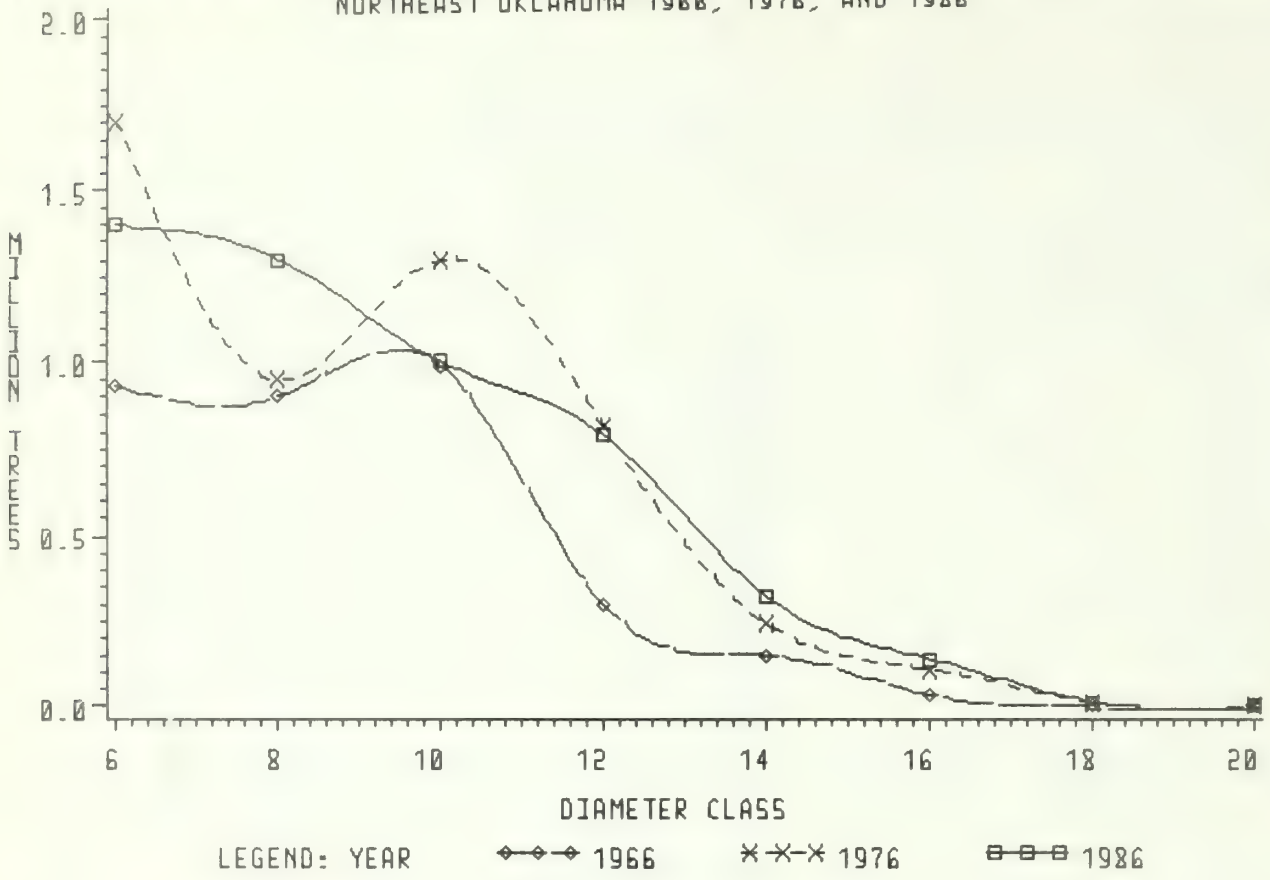



CHANGE IN NUMBER OF LIVE SOFTWOOD TREES
NORTHEAST OKLAHOMA 1976 TO 1986
PERCENT
125
100
75
50
25
0
-25
0
2
4
6
8
10
12
14
16
18
20
DIAMETER CLASS


CHANGE IN NUMBER OF LIVE HARDWOOD TREES
NORTHEAST OKLAHOMA 1976 TO 1986
PERCENT
60
50
40
30
20
10
0
0
2
4
6
8
10
12
14
16
18
20
DIAMETER CLASS

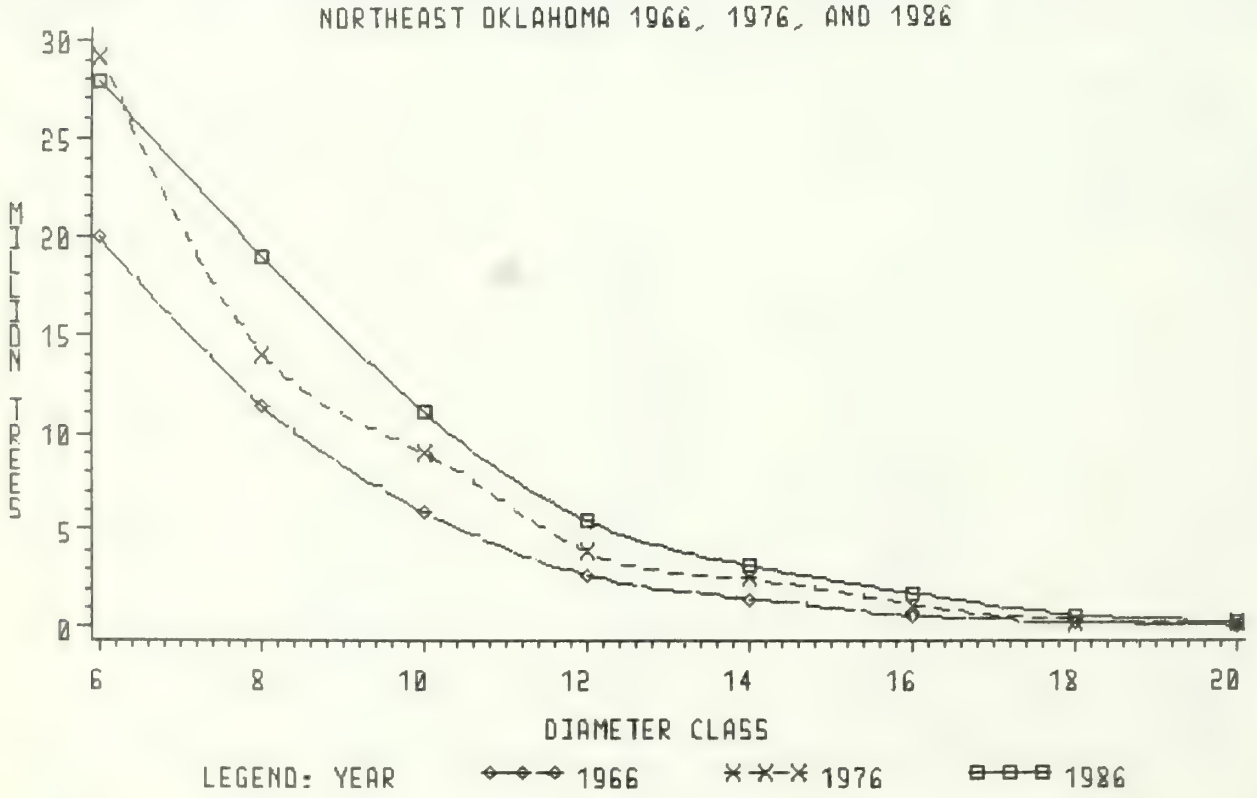
## NUMBER OF SOFTWOOD GROWING STOCK TREES BY DBH CLASS

NORTHEAST OKLAHOMA 1966, 1976, AND 1986



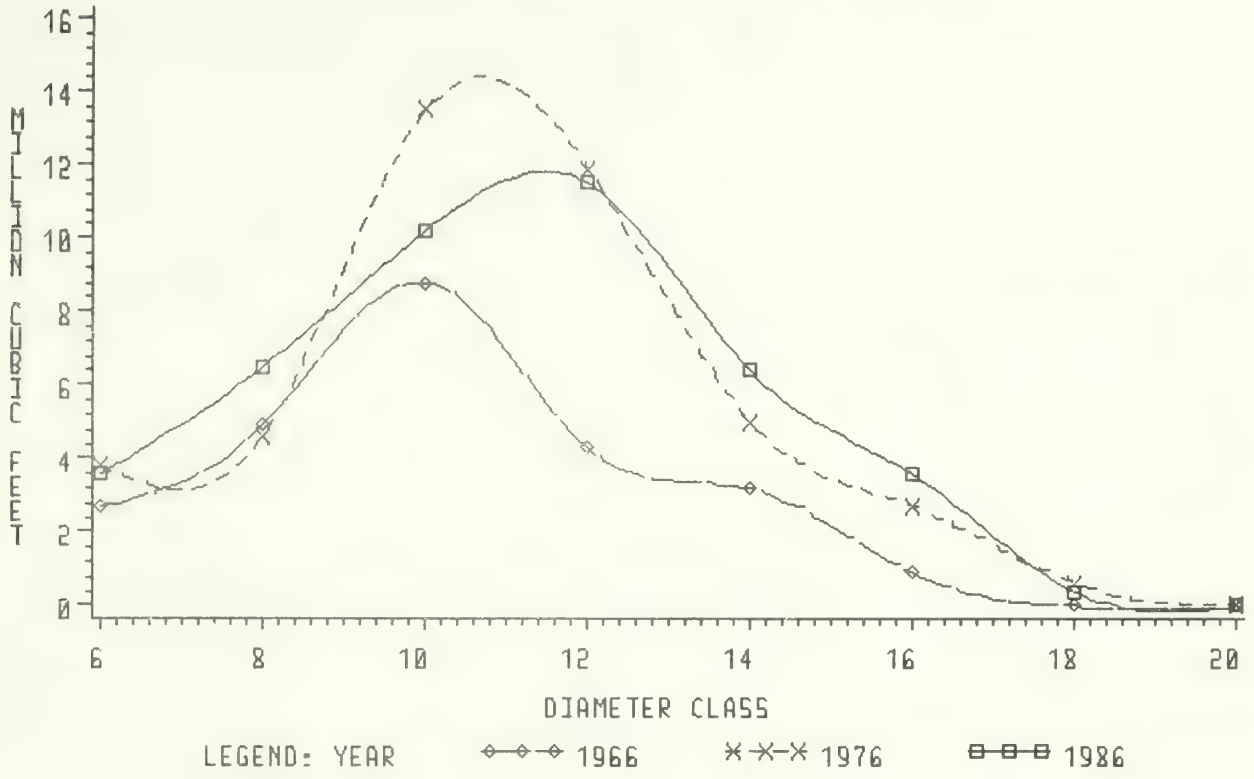

## NUMBER OF HARDWOOD GROWING STOCK TREES BY DBH CLASS

NORTHEAST OKLAHOMA 1966, 1976, AND 1986



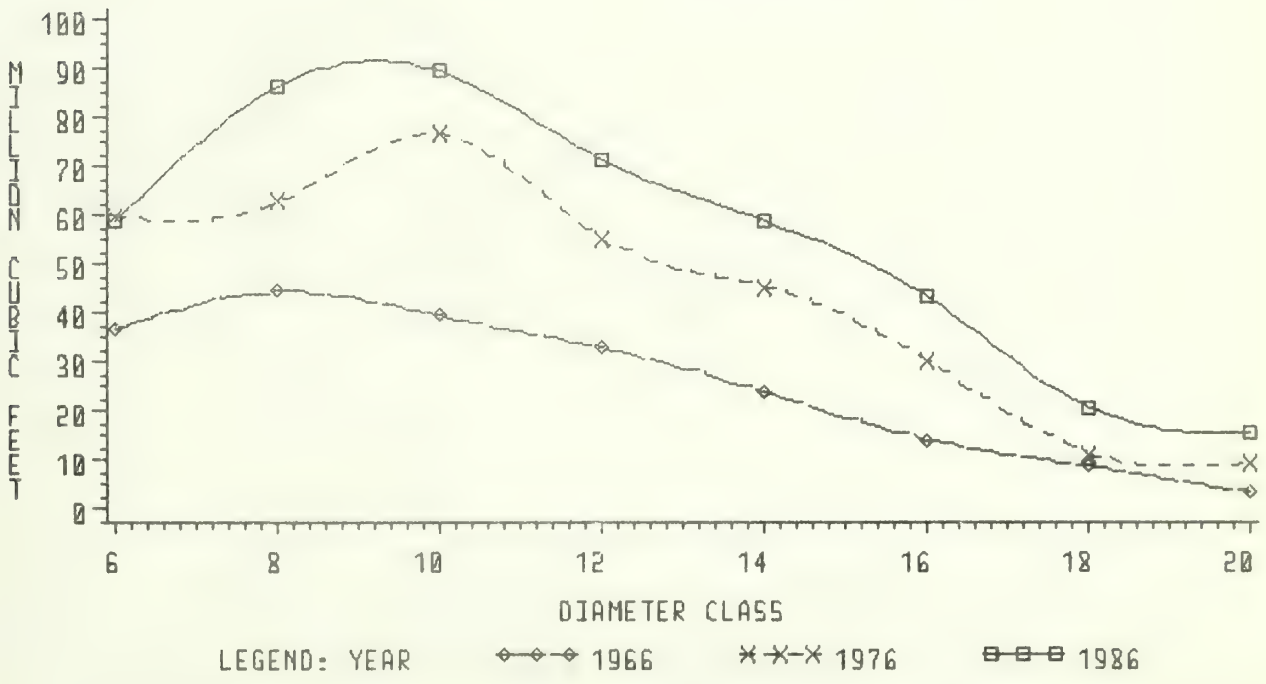
# SOFTWOOD GROWING STOCK VOLUME BY DBH CLASS

NORTHEAST OKLAHOMA 1966, 1976 AND 1986



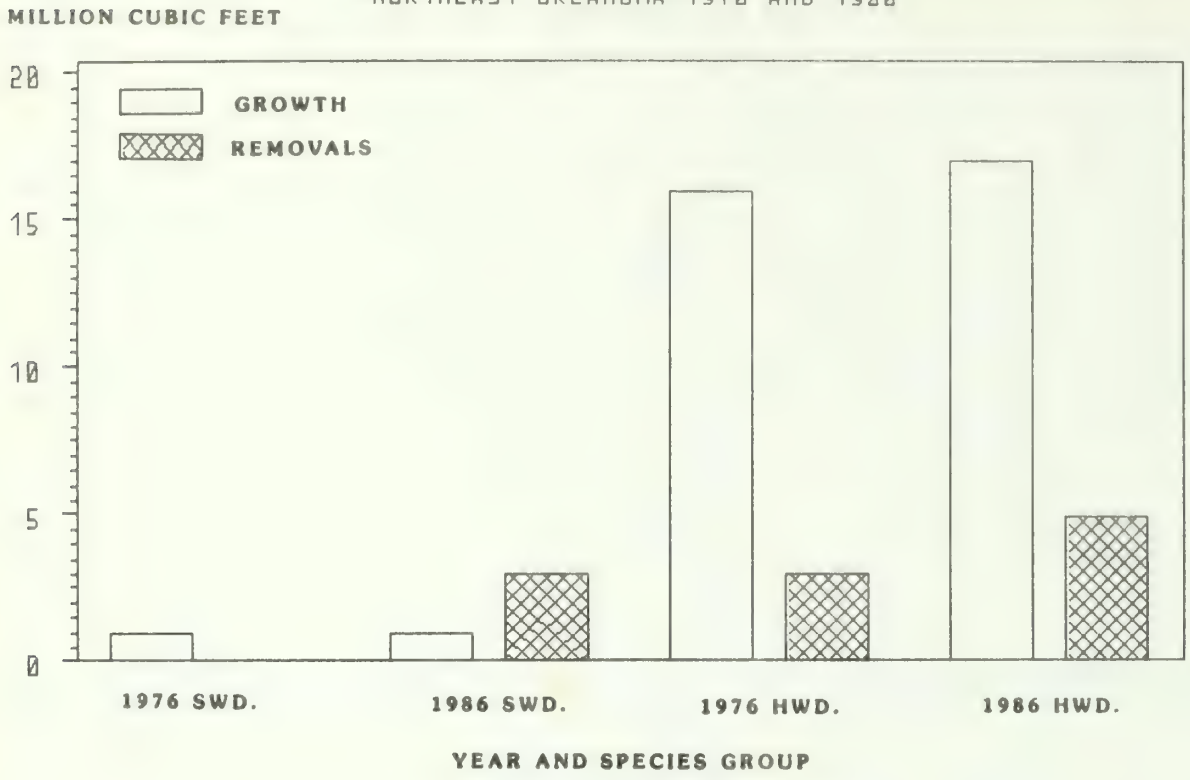

# HARDWOOD GROWING STOCK VOLUME BY DBH CLASS

NORTHEAST OKLAHOMA 1966, 1976, AND 1986



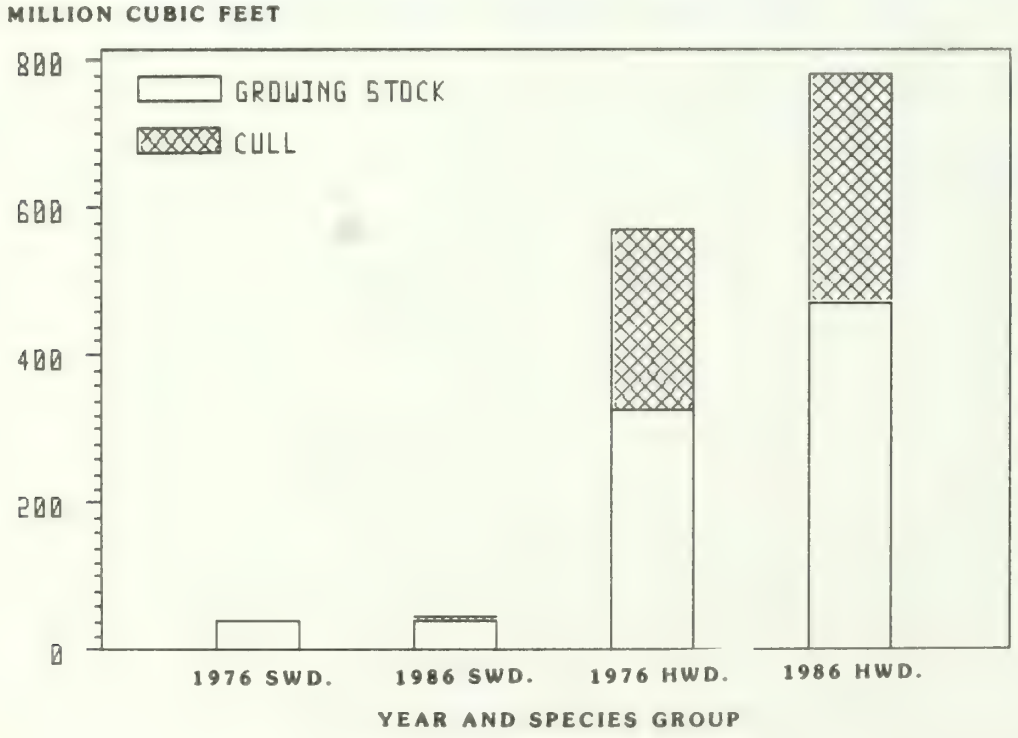
# GROWTH AND REMOVALS BY SPECIES GROUP

NORTHEAST OKLAHOMA 1976 AND 1986




# TIMBER VOLUME BY TREE CLASS AND SPECIES

NORTHEAST OKLAHOMA 1976 AND 1986

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Birdsey, Richard A. and Bertelson, Daniel F. Forest statistics for Northeast Oklahoma counties - 1986. Resour. Bull. SO-120. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station; 1987. 30 p.

Tabulates forest resource information from a new inventory of the Northeast Unit of Oklahoma.

**Additional Keywords:** Area, volume, forest type, stand size, ownership.